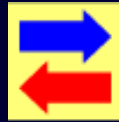




SCHOOL OF NAVAL
ARCHITECTURE &
MARINE ENGINEERING

LABORATORY FOR MARITIME TRANSPORT
NEWSLETTER No 9
April – June 2009



<http://www.martrans.org>



N.T.U.A.
NATIONAL TECHNICAL
UNIVERSITY OF ATHENS

Dear Reader,

The electronic newsletter of the Laboratory for Maritime Transport (LMT) of NTUA is issued regularly to inform you regarding our current and forthcoming activities. You are warmly encouraged to visit our website (www.martrans.org) for further information and to contact us about your enquiries. Your feedback will be highly valued. Kind regards..._

The LMT staff

LMT at MLOG 2009 in Singapore

LMT participated with three people (D. Lyridis, H. Psaraftis and P. Zacharioudakis) at the International Symposium on Maritime Logistics and Supply Chain Systems (MLOG 2009), held in Singapore on April 23-24. Three LMT papers were presented (see papers section). In addition, Professor Psaraftis delivered one of the two invited plenary addresses of the Symposium, entitled "Green Maritime Logistics". The talk took a look at the various tradeoffs that are at stake in the goal for greener shipping and may impact the cost-effectiveness of the logistical supply chain and presented some models that can be used to evaluate these tradeoffs.



Harilaos Psaraftis with BG (NS) Choi Shing Kwok, Permanent Secretary, Singapore's Ministry of Transport

It is reminded that LMT is engaged in a 2-year collaborative project with the National University of Singapore (Profs. T.F. Fwa and Meng Qiang) in the context of the NOL Fellowship Programme. The project deals with the analysis of optimal containership size and its impact on liner shipping operations.

IMO Business: MSC 86



Professor Psaraftis attended the 86th session of IMO's Maritime Safety Committee, held in London May 27-June 5. He joined the newly formed Group of Experts on Formal Safety Assessment (FSA) as the nominee of Greece.

The task of this group is to review several FSA studies submitted to the IMO and report back to the MSC in due course. At this moment, 5 FSA studies have been submitted, on LNG vessels, on containerships, on cruise vessels, on Ro/Pax ships and on crude oil tankers. All of these studies have been submitted by Denmark on behalf of EU project Safedor.

This was the first meeting of the Group of Experts and it involved presentations by the Safedor project team, preliminary comments on the presented FSAs and a general discussion on how the review would proceed.

The FSA review process will involve, among other things, the formation of a correspondence group under the coordination of Mr. K. Yoshida (Japan), who also chairs the Group of Experts. An intersessional meeting of the Group of Experts is planned in November 2009 at IMO headquarters and a report to MSC 87 is expected in 2010.

On this same subject, Greece presented two papers at MSC 86 plenary, one on proposing to clarify the role of experts nominated for the FSA Experts Group and on database issues and one commenting on the 5 submitted FSAs and on the application of FSA IMO guidelines. MSC 86 generally agreed with the observation by Greece on database issues that there is a lack of information on root causes of casualties for general cargo ships and, having noted the view expressed by some delegations that data used in FSA studies should be transparent, instructed the Group of Experts to consider the database-related issue and advise the Committee accordingly.

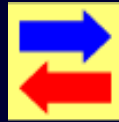
It is reminded that LMT is already heavily involved in a related IMO activity, the development of environmental risk evaluation criteria in FSA. The correspondence group coordinated by Prof. Psaraftis that has been dealing with this subject is scheduled to present its report at the 59th session of IMO's Marine Environment Protection Committee - MEPC (July 13-17, London).

More details on all these will be reported in future newsletters.



SCHOOL OF NAVAL
ARCHITECTURE &
MARINE ENGINEERING

LABORATORY FOR MARITIME TRANSPORT
NEWSLETTER No 9
April – June 2009



<http://www.martrans.org>



N.T.U.A.
NATIONAL TECHNICAL
UNIVERSITY OF ATHENS

LMT at the 9th Meeting of the Focal Points of REMPEC



Dr N.P. Ventikos was a member of the Hellenic Delegation at the 9th Meeting of the Focal Points of the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) which took place in

Malta from April 21 to April 24, 2009. The meeting focused on important issues for the Mediterranean Sea such as the cooperation of agreements in the field of prevention and response to marine pollution from ships, the improvement of the level of enforcement of MARPOL Convention Annex I in the region, the activities related to ships ballast water management and invasive species etc. Dr. Ventikos is a member of the Mediterranean Technical Working Group (MTWG) of REMPEC.

LMT monitors the oil removal operation from Sea Diamond

In the context of the signed “programmatic contract” between the Municipal Port Fund of Thira and the National Technical University of Athens, LMT was present at the oil removal operation from the wreck of cruise vessel Sea Diamond that sank in Santorini island in 2007. The operation was undertaken by British company Dronik Maritime Consultants Ltd. and lasted from May 16 to June 14, 2009. LMT staff N. Ventikos, S. Hatzinikolaou and P. Zacharioudakis were on site during that period. The role of LMT was to follow/record all activities and report back to the Port Fund any developments that were identified and documented adequately. Under the “programmatic contract” LMT is the technical advisor to the Municipal Port Fund of Thira for the protection of the marine and littoral environment of the island of Santorini from possible pollution from the Sea Diamond wreck.



LMT student wins the 2009 IMAREST student thesis contest



In this year’s contest of the Institute of Marine Science and Technology (IMAREST) among student diploma theses submitted to NTUA’s School of Naval Architecture and Marine Engineering, an

LMT thesis won the first prize. The top award went to LMT student Panagiotis Kontoris with a thesis entitled: “Sewage Management Onboard Ships”. The thesis was supervised by LMT Lecturer Dr. N.P. Ventikos. In particular, a small award ceremony for the winners took place in the Multimedia Auditorium of the Central Library Building in the NTUA Campus at Zografou (June 17, 2009).

SNAME Greek Student Section

LMT’s doctoral candidate Christos Kontovas has been elected Chair of the Greek Student Section of the Society of Naval Architects and Marine Engineers (SNAME). The Greek Student Section at the National Technical University of Athens is SNAME’s only section outside North America.

Most recently, Christos flew out to the United States to attend the Student Chair Elect Seminar on June 12-14, 2009, an annual leadership conference for the incoming Student Section officers in Saddlebrook Resort outside of Tampa, Florida. The purpose of “SNAME SCHOOL” is to assist and prepare the incoming section chairs and student chairs for the challenging year ahead leading their individual sections, to provide information and resources, facilitate the working relationships with the Regional Vice Presidents and other section chairs as well to create a spirit of camaraderie for the 2009 section leaders.

LMT at IMDC 2009 in Trondheim

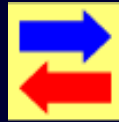


LMT was present at the IMDC (International Marine Design Conference) conference, a triennial event that this year was held in Trondheim (Norway) on May 26-29. IMDC 2009 was organized by the



SCHOOL OF NAVAL
ARCHITECTURE &
MARINE ENGINEERING

LABORATORY FOR MARITIME TRANSPORT
NEWSLETTER No 9
April – June 2009



<http://www.martrans.org>

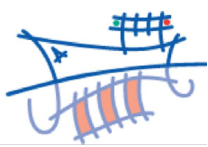


N.T.U.A.
NATIONAL TECHNICAL
UNIVERSITY OF ATHENS

Norwegian University of Science and Technology (NTNU) at the Gloschaugen Campus. A variety of topics was covered related to design methodologies, innovative ship and offshore design, design for production, design for safety, design for operation, CAD/CAM systems and IT technology, risk consideration, naval ship design and naval design education.

Doctoral Student C. Kontovas presented a paper entitled "Ship Emissions: Logistics and Other Tradeoffs". The paper is co-written with Professor H. Psaraftis and deals with the various tradeoffs that are at stake in the goal for reduced ship emissions. An operational setting that is connected with the logistics of the ship operation, and specifically with its operational speed was examined. The paper examines possible effects of speed reduction as a measure to reduce emissions for a known type of ship. For that ship, no design or other major changes (e.g. an engine change) are assumed to be taking place, but speed reduction of a given design is investigated.

LMT at IAME 2009 in Copenhagen



LMT was present at the 2009 IAME (International Association of Maritime Economists) conference, an annual event that this year was hosted in Copenhagen (Denmark) on June 24-26. IAME 2009 organisers were the Department of Maritime Research and Innovation, University of Southern Denmark, in collaboration with the Norwegian School of Economics and Business Administration (NO), the School of Business, Economics and Law at Gothenburg University (SE), the Center for Shipping Economics and Innovation, Copenhagen Business School (DK), the Svendborg International Maritime Academy, Maritime Development Centre of Europe (DK), and the Department of Maritime Research and Innovation, University of Southern Denmark (DK).



LMT's participation was with the paper titled "Game Theory Contributions to Terrorism Analysis in Merchant Shipping: An Application to Port Security" presented by K.G. Gkonis and co-authored by H.N. Psaraftis and N.P. Ventikos, which introduced a novel approach to the analysis of security and terrorism questions in the shipping industry.

The IAME conference is directed at all segments of the maritime sector including shipping companies, industry, authorities, maritime associations, researchers, and educational institutions.

3rd S.O.M.E. Symposium (SNAME) planned for October 2010

The 3rd International Symposium on Ship Operations, Management and Economics is planned for October 7-8, 2010. As before, the Greek Section of SNAME and the SNAME European Regional Office will organize the Symposium. The chairman of the 2010 Symposium is Harilaos Psaraftis and the chairman of the papers committee is Dimitris Lyridis. A separate call for abstracts has been issued.

Ongoing doctoral research at LMT

An important part of the research undertaken at LMT is reflected in the work of its graduate and undergraduate students. It is a priority for LMT to disseminate its academic research work and link it with the real challenges faced by the industry. In this context, and continuing from the previous issues of our newsletter, the ongoing work of LMT's doctoral candidates is briefly presented (more information at LMT website, "People" section www.martrans.org/people.htm; about completed PhD and undergraduate theses see the "non - funded research" section www.martrans.org/research.htm).

Protection of banking organizations and shipping companies against macroeconomic financial risks

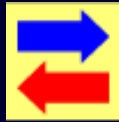
Nikolaos D. Manos began his doctoral studies at LMT in 2009 supervised by Ass. Prof. D. Lyridis. The essential incentive for his research work was the ongoing financial crisis, which began on October 2007 and affected in a very negative way banks and maritime companies, which constitute two essential sectors that give the pace to the global economy. Economic history has proved that general macroeconomic circumstances have direct effect to the viability of enterprises of every sector and determine the level of their prosperity or the probability of their bankruptcy.

The ultimate goal of this research is to find out, through sophisticated econometric techniques such as neural networks, principal components analysis and multiple regression analysis, the interdependence between banks and maritime companies



SCHOOL OF NAVAL
ARCHITECTURE &
MARINE ENGINEERING

LABORATORY FOR MARITIME TRANSPORT
NEWSLETTER No 9
April – June 2009



<http://www.martrans.org>



N.T.U.A.
NATIONAL TECHNICAL
UNIVERSITY OF ATHENS

and general macroeconomic figures. The examination of the interdependence will protect those companies from various macroeconomic risks. The research will focus to the best allocation of funds according to various macroeconomic scenarios.

The key factor in the research is the effectiveness of Asset and Liabilities Management (ALM) in order to succeed in the ideal level of liquidity and capital adequacy along with a concurrent maximization of the profitability. Within the frame of the research we will also carry out stress test methods for banks and maritime companies in order to find out the level of their protection against various pessimistic macroeconomic scenarios.

Meetings and Events

attended by LMT staff

- MLOG 2009 Symposium, Singapore, April 23-24.
- NOL-NTUA project meeting, Singapore, April 25.
- FLAGSHIP project workshop, Piraeus, Greece, May 13.
- DNV-NTUA project meeting, Trondheim, Norway, May 25.
- International Marine Design Conference (IMDC 2009), Trondheim, Norway, May 26-29.
- IMO MSC 86 meeting, London, UK, May 27-June 5.
- EFFORTS WP3.1 evaluation, Thessaloniki Port Authority, Thessaloniki, Greece, June 24-25.
- IAME 2009 Conference, Copenhagen, Denmark, June 24-26.

Papers, presentations and speeches

published / presented by LMT staff

- Gkonis, K. G and H.N. Psaraffis (2009), "The LNG Market and a Game Theory Approach to Competition in LNG Shipping", *Maritime Economics and Logistics Journal*, 11:2, pp. 227-246.
- Gkonis, K., H. Psaraffis, and P. Tsilingiris (2009), "Liner Shipping Costs and Logistics: A Literature Survey and Taxonomy of Problems," *International Symposium on Maritime Logistics and Supply Chain Systems (MLOG 2009)*, Singapore, April 23-24.
- Gkonis, K.G. and H.N. Psaraffis (2009), "The scenario bundle method and the security of gas supply for Greece" in "Contributions to Game Theory and Management",

Vol.II, pp. 92-113, Graduate School of Management, St. Petersburg University.

- Gkonis, K.G., H.N. Psaraffis, and N.P. Ventikos (2009), "Game Theory contributions to Terrorism in Merchant Shipping: an Application to Port Security", *IAME 2009 Conference*, Copenhagen, Denmark, June 24-26.
- Grigoriou, E., N. Ventikos, and N. Kakalis (2009), "Oil spill waste management", *Environment & Law*, 13(1), pp. 53-58 (in Greek).
- Lyridis, D. and P. Zacharioudakis (2009), "Analysing Tanker Market Elasticity With Respect To Oil Production Using FORESIM", *International Symposium on Maritime Logistics and Supply Chain Systems (MLOG 2009)*, Singapore, April 23-24.
- Psaraffis, H.N. (2009), "Environmental Risk Assessment: For a Fistful of (60,000) dollars", *Naftika Chronika*, May issue (in Greek).
- Psaraffis, H.N. (2009), "Green Maritime Logistics", invited plenary address, *International Symposium on Maritime Logistics and Supply Chain Systems (MLOG 2009)*, Singapore, April 23-24.
- Psaraffis, H.N. (2009), "Market Based Instruments for Ship Air Emissions", *Naftika Chronika*, June issue (in Greek).
- Psaraffis, H.N. and C.A. Kontovas (2009), "CO2 Emissions Statistics for the World Commercial Fleet", *WMU Journal of Maritime Affairs*, 8:1, pp. 1-25.
- Psaraffis, H.N. and C.A. Kontovas (2009), "Ship Emissions: Logistics and Other Tradeoffs," *International Marine Design Conference (IMDC 2009)*, Trondheim, Norway, May 26-29.
- Zagkas V.K. and D.V. Lyridis (2009), "An Analysis Of Seaport Cluster Models For The Development And Competitiveness Of Maritime Sectors: The Port Of Piraeus", *International Symposium on Maritime Logistics and Supply Chain Systems (MLOG 2009)*, Singapore, April 23-24.

2008 LMT Annual Report

This report is a summary of LMT's achievements and activities during calendar year 2008 and can be downloaded from LMT's website at www.martrans.org

