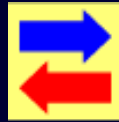




SCHOOL OF NAVAL
ARCHITECTURE &
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LABORATORY FOR MARITIME TRANSPORT
NEWSLETTER No 6
July – September 2008



<http://www.martrans.org>



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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

Ship Emissions Study and Web Tool draw industry's attention

By the end of September, the LMT's ship emissions study webpage had received 1,177 views from 63 countries since its launch (July 17, 2008), according to statistics provided by Google Analytics. Moreover, the online tool that estimates ship emissions was used 773 times. Various articles referring to this web tool appeared in press, among others, in Lloyds' List (June 23rd), TradeWinds (August 28th), and the IMO information resources document on Climate Change and the Maritime Industry (October 7th).

Perhaps among the study's most interesting results is the figure that follows, which shows estimates of annual CO₂ emissions per ship type and size bracket for the 2007 world commercial fleet. It can be seen that the top tier containership category

(4,400 TEU and above) is estimated to emit slightly more CO₂ than that emitted by the entire crude oil carrier fleet.

To download the complete study and/or access the web tool, please go to this link:

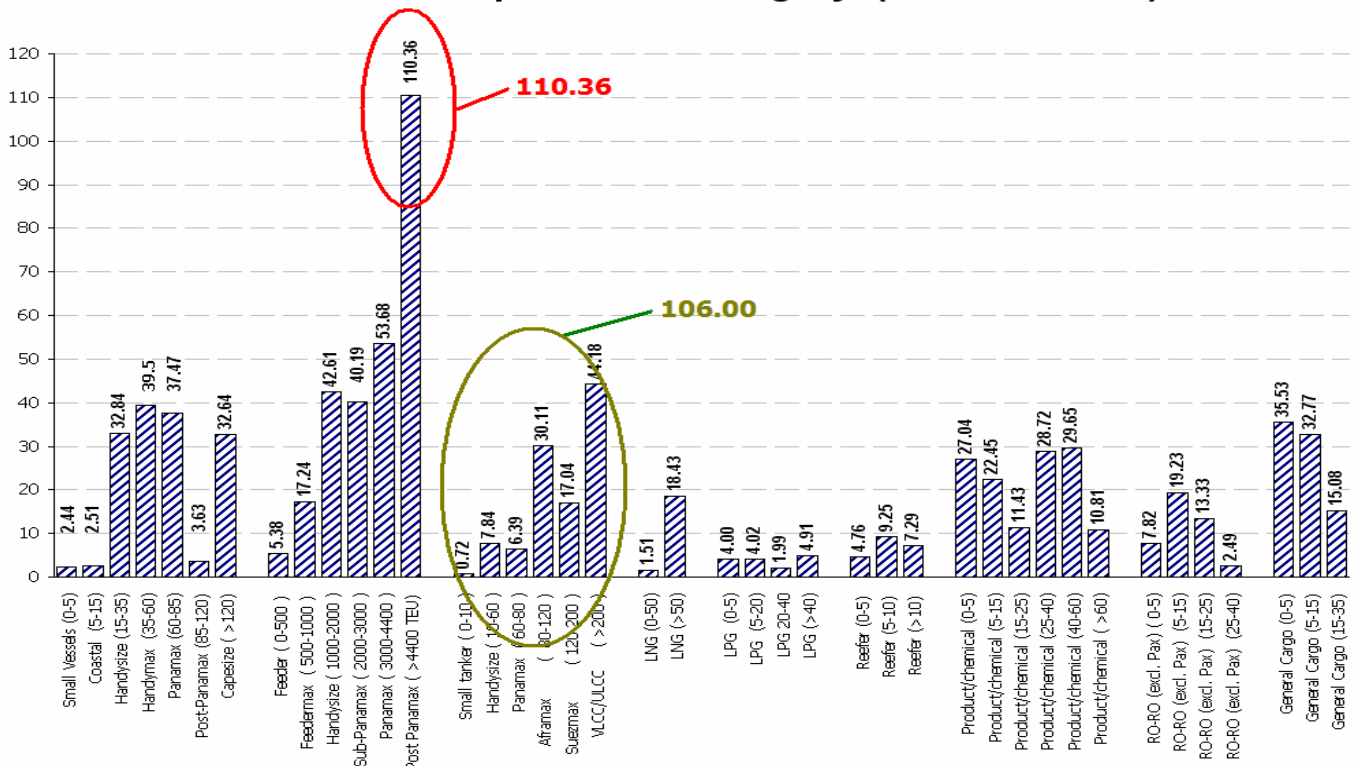
<http://www.martrans.org/emis/emis.htm>

LMT tasting beer in Bavaria

Prof. Psaraftis presented a paper entitled "Logistics - emissions tradeoffs in maritime transport" at the Operations Research 2008 international conference organized by the German Operations Research Society and held at the campus of the University of Augsburg, Germany on September 3-5, 2008.

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CO₂ emissions per vessel category (million tonnes)





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Augsburg City Hall: venue of one of the social events of the OR 2008 conference



In this context, LMT's Lecturer Dr. Nikolaos P. Ventikos got onboard the research vessel PHILIA and followed all operations of the HCMR scientific team for the examination and recording of the current status of SEA DIAMOND at the bottom of the sea; the under sea operations were carried out with the usage of two Remote Operating Vessels (ROVs) and lasted from September 10 to September 12.

The conference had "OR and Global Business" as its theme and was attended by some 500 delegates, who enjoyed an excellent Bavarian hospitality and a conference of a wide range of topics in OR. The topic of Prof. Psaraffis' paper is indeed a global issue, as reduction of emissions in maritime transport, both from greenhouse gases (GHG), such as CO₂, CH₄ and others, and also from SO₂ and NO_x emissions, as well as others, is a goal that is clearly stated and very pressing. The paper focused on logistics-related tradeoffs that are at stake in the goal for greener shipping and presented models that can be used to evaluate these tradeoffs.

More details about the conference can be found at www.or2008.de

Mare Forum Marseille: "The Mediterranean Basin Shipping Future"

Prof. Psaraffis presented a paper entitled "Mediterranean Container Hubs of the Future", at the Mare Forum Conference in Marseille, France, on 16 September 2008.

LMT at Sea Diamond wreck

The Municipality of Thira (island of Santorini) invited LMT to act on its behalf as an observer at the recent measurements made by the Hellenic Centre for Marine Research (HCMR) for the definition (updating) of the status and situation of the wreck of the cruise vessel SEA DIAMOND at Santorini.

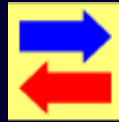


The conference was held at the Pullman Palm Beach hotel and had "The Mediterranean Basin Shipping Future" as its theme. The paper went over factors that are likely to be important for the development of container hubs in the Mediterranean, and discussed the possible impact of speed reduction, vessel size increase, use of cleaner fuels and container security. More details about the conference can be found at www.mareforum.com



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LMT present at SNAME International Symposium

The 2nd International Symposium on Ship Operations, Management, and Economics was held on 17-18

September 2008 in Athens, Greece, organised by the Greek Section of the Society of Naval Architects and Marine Engineers (SNAME) and hosted at the premises of Eugenides Foundation. The keynote speech of the symposium, which was attended by some 120 people, was given by the SNAME President, Admiral Robert E. Kramek (USCG, ret.).

THE GREEK SECTION OF THE SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS (SNAME)



MOSES in session at NTUA on Sep. 29

LMT had a strong participation with the presentation of 4 papers, under the titles “Early Commitment and Entry Deterrence in an LNG shipping market”, “Marine Environment Risk Assessment: A Survey on the Disutility Cost of Oil Spills”, “Exploring tanker market elasticity with respect to oil production using FORESIM”, and “A model-based approach for tactical decision making in oil spill response” (the last one with Oxford University). In total, 28 papers were presented in a two-day programme.



LMT's Ass. Prof. D.Lyridis addressing the audience

LMT's Prof. Harilaos Psaraftis was present as the outgoing chairman of the Greek Section of SNAME, succeeded by Dr. George Anagnostou. Also, LMT's Assist. Prof. Dimitrios Lyridis was the chairman of the Papers / Technical committee.

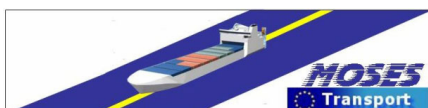
For more information on MOSES, please visit this link:
www.moses-eu-project.org

Just In: IMO - MEPC 58

The 58th session of IMO's Marine Environmental Protection Committee (October 6-10, London) was memorable on several counts, listed here in random order: First, it was the first MEPC session held in the newly refurbished IMO headquarters on Albert Embankment on the south bank of the Thames. Second, Andreas Chrysostomou, already Chairman of MEPC since 2003, was reelected by acclamation as Chairman for 2009. Third, MEPC 58 unanimously adopted amendments to the MARPOL Annex VI regulations to reduce harmful emissions from ships even further. The main changes to MARPOL Annex VI will see a progressive reduction in sulphur oxide (SOx) emissions from ships, with the global sulphur cap reduced initially to 3.50%, effective 1 January 2012; then progressively to 0.50 %, effective 1 January 2020. Fourth, MEPC 58 conducted a regulation-by-regulation review of the draft new convention providing globally applicable regulations for ship recycling and for recycling activities. The text will now be circulated for consideration and adoption by a diplomatic conference to be held in Hong Kong, China, from 11 to 15 May 2009. Last but not least, significant discussion and debate took place as regards the situation on Greenhouse Gas emissions and measures to curb it.

MOSES holds back-to-back meetings

EU FP6 Project MOSES (Motorways of the Sea European Style) held two



back-to-back meetings in September. One on Sep. 22 in Brussels, to review progress on the project with the European Commission and external reviewers, and one hosted by NTUA-LMT on Sep. 29-30 in Athens, to discuss technical and managerial matters. The MOSES consortium is coordinated by MARINTEK (Norway), has 41 partners from 17 European countries and a total budget of 14 Million Euros.

As far as LMT involvement in IMO business is concerned, MEPC 58 saw continued progress on the topic of Environmental Risk Evaluation Criteria in Formal Safety Assessment. Chaired by Prof. Psaraftis, a group attended by delegations from Canada, China, Finland, Greece, Japan, Malaysia, New Zealand, Norway, Turkey, and the United States, and by observers from BIMCO, OCIMF and Intertanko discussed all pending issues as regards the establishment of



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environmental cost-effectiveness criteria in FSA. Such issues were under discussion within a correspondence group established since MEPC 56 (summer 2007). It was noted that even though divergence of opinion existed among group members on some key issues, there were also areas where agreement could be reached. And indeed, the group agreed that non-linearity between cleanup costs and oil spill volume had been documented in various studies. The group also agreed that, in spite of various documented shortcomings, in Steps 3 and 4 of the FSA one could use an “oil spill cost per unit volume” criterion to assess the cost-effectiveness of RCOs. Significant debate took place as regards the value of the cost-effectiveness threshold. The group’s deliberations were presented by Prof. Psaraftis in plenary and it was agreed to extend this discussion by re-establishing a correspondence group under his coordination, with a view to finalizing the discussion by MEPC 59, to be held in July of 2009. More details will be presented in the next LMT newsletter.



MEPC 58 in session: The view from the Greek delegation desk

Meetings and Events attended by LMT staff

- German Operations Research Society conference, Augsburg, Germany, Sep. 2-5
- Chinos project meeting, Bremerhaven, Germany, Sep. 9-10
- Mare Forum Conference “The Mediterranean Basin Shipping Future”, Marseille, France, Sep. 16
- SNAME Greek Section's 2nd International Symposium on Ship Operations, Management and Economics, Athens, Greece, Sep. 17-18
- MOSES project meeting, Brussels, Belgium, Sep. 22
- ABS project meeting, Athens, Greece, Sep. 26
- MOSES project meeting, Athens, Greece, Sep. 29-30

Papers, presentations and speeches published / presented by LMT staff

- Genikomsidou I., Ventikos N.P. (2008), “The New Oil Pipeline from Bourgas to Alexandroupolis: Critical Analysis of Simulation Methods for the Protection of the Aegean Sea”, Proceedings of the 1st World Summit on Knowledge Society, Athens, Greece, Springer, CCIS vol. 19, pp.: 720-726, ISSN: 1865-0929
- Gkonis, K.G., Psaraftis, H.N. (2008), “Early Commitment and Entry Deterrence in an LNG shipping market”, SNAME Greek Section's 2nd International Symposium on Ship Operations, Management, and Economics, Athens, Greece, 17-18 September 2008
- Gkonis, K.G., Kakalis, N.M.P., Ventikos, N.P., Ventikos, Y., Psaraftis, H.N. (2008), “A model-based approach for tactical decision making in oil spill response”, SNAME Greek Section's 2nd International Symposium on Ship Operations, Management and Economics, Athens, Greece, 17-18 September 2008
- Kontovas, C.A., Psaraftis, H.N. (2008), “Marine Environment Risk Assessment: A Survey on the Disutility Cost of Oil Spills”, SNAME Greek Section's 2nd International Symposium on Ship Operations, Management and Economics, Athens, Greece, 17-18 September 2008
- Psaraftis, H.N. (2008), “Logistics-emissions tradeoffs in maritime transport”, German Operations Research Society conference, Augsburg, Germany, 2-5 September 2008
- Psaraftis, H.N. (2008), “Mediterranean Container Hubs of the Future”, Mare Forum Conference “The Mediterranean Basin Shipping Future”, Marseille, France, September 2008
- Zacharioudakis, P., Lyridis, D. (2008), “Exploring tanker market elasticity with respect to oil production using FORESIM”, SNAME Greek Section's 2nd International Symposium on Ship Operations, Management and Economics, Athens, Greece, 17-18 September 2008.