



SCHOOL OF NAVAL
ARCHITECTURE &
MARINE ENGINEERING

LABORATORY FOR MARITIME TRANSPORT
NEWSLETTER No 23
October – December 2012



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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

Best Wishes for 2013



*The Laboratory for Maritime Transport
at NTUA wishes you and your families
the very best for the New Year !*

NEWSFLASH:

Final curtain for SuperGreen in Sweden



Time flies and the SuperGreen project came to an end in January 2013. After two plenary workshops (Helsinki 2010 and Genoa 2011), four regional workshops (Naples 2010, Antwerp, Malmö and Sines 2011), a special session on green corridors at the TRA 2012 conference (Athens 2012), close to 50 other external presentations, and three years full of exciting work, the project presented all its major results in its 3rd and final plenary workshop. The event took place in Gothenburg, Sweden on 11th January 2013 and was kindly hosted by SuperGreen partner DB Schenker. Details of progress and all major results achieved in the project, including the benchmarking methodology, KPIs, Green Technologies and ICT systems were presented at the workshop. Directions of further research as well as policy recommendations were also discussed. The closing speech was delivered by Mrs Gudrun Schulze of DG-MOVE/TEN-T.

All presentations can be downloaded from the project's web site: <http://www.supergreenproject.eu/igo2013.html>

More details on the closure of SuperGreen including a summary of main results will be reported in the next edition of the LMT newsletter.





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IMO business: MEPC 64

The 64th session of the Marine Environment Protection Committee (MEPC 64) took place from October 1 to 5, 2012 under the chairmanship of Mr. Andreas Chrysostomou (Cyprus). Harilaos Psaraftis of LMT participated in MEPC 64 as a member of the Greek delegation, his main interest being Market Based Measures (MBMs) for greenhouse gases.

Basically MEPC 64 achieved little progress on the MBM front and left things for MEPC 65 (May 2013). In fact, there has been no progress on MBMs since 2010, due to heavy workload of MEPC as regards EEDI.



Still, a number of related documents were submitted, perhaps the most important of these being document MEPC 64/5/5 (Secretariat) containing a draft outline for an update of the GHG emissions estimate for international shipping (2009 GHG study) providing, among others, methodological aspects and information on the work distribution. This was endorsed in principle by MEPC 64. It was agreed that an expert workshop, to be held February 25-March 1 2013, should further consider the methodology and assumptions to be used in the update. MEPC 64 also agreed to postpone discussion of the impact assessment study (already proposed by the Chairman at MEPC 63) to MEPC 65.

It is noteworthy also to add that on the 1st day of MEPC 64, the European Commission, by Vice-President Siim Kallas and Commissioner for Climate Action Connie Hedegaard, made a statement that a simple, robust and globally-feasible approach towards setting a system for monitoring, reporting and verification of emissions based on fuel consumption will help make progress at global level and feed into the IMO process. Industry circles interpreted this statement as the

Commission abandoning the regional approach on GHGs, which was feared to create distortions. The Commission also stressed the need for obtaining reliable emissions data, a goal that several other delegations seem to be espousing recently.

IMO business: FSA expert group

The Experts Group (EG) on Formal Safety Assessment (FSA) met from 21 to 23 November 2012 in IMO's headquarters under the chairmanship of Mr. K. Yoshida (Japan), just prior to MSC 91. Harilaos Psaraftis attended the meeting as a member of the EG.

MSC 90 had instructed the FSA EG to review the FSA studies on crude oil tankers, submitted by Denmark, and on sea transport of dangerous goods, submitted by Germany. Of these two FSAs, the most important was the crude oil tanker FSA, already submitted some 3 years ago, but held off by the IMO until the issue of CATS (Cost to Avert one Tonne of Spilled Oil) was resolved. As one may remember, that issue was settled at MEPC 62 (July 2011), when the Working Group on Environmental Risk Evaluation Criteria (which Psaraftis chaired) arrived at a non-linear function to describe how total spill cost varied with spill volume. This function gave a cost per tonne much lower than the (constant) \$60,000/tonne postulated in the crude oil FSA. In fact it was the 60k value that had triggered the long series of discussions on environmental risk evaluation criteria that started in MEPC 57 (2007) under the coordination of Greece, with Psaraftis playing the key role of chairman of several correspondence groups and working groups.

So now that MEPC 62 had reached a conclusion, the tanker FSA was forwarded to the FSA EG. The FSA study was presented by NTUA colleague Prof. Apostolos Pananikolaou and was well received. But perhaps the most important result of the group's discussion was that "RCOs 7.1 (*enhanced cargo tank subdivision*), 7.2 (*increased double bottom height*) and 7.3 (*increased side tanks width*) would not be further considered since the CATS criterion is not included in the Revised FSA Guidelines".

Thus, this meeting capped a discussion on environmental risk evaluation criteria that started more than 5 years ago, which included a long series of very difficult interchanges within several correspondence and working groups over the years (see earlier issues of this newsletter for intermittent news on this topic).



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SNAME ANNUAL MEETING



The Greek Section of the Society of Naval Architects & Marine Engineers (SNAME) had an impressive participation in the October 2012 SNAME Annual Meeting in Providence, Rhode Island in USA. Ten of its members attended the week long meetings and activities including 7 student SNAME members from the Department of Naval Architecture (NTUA), Mr. Petros Lalangas, Manager of SNAME's European Regional Office (SERO), and two LMT members, who are also very actively involved in SNAME: Prof. Harilaos Psaraftis of NTUA and Dr. Christos Kontovas, Exec. Committee member of the Greek Section. Prof. Psaraftis has also presented a paper entitled "Modeling Tanker Optimal Speed & Emissions: The case of VLCCs" which was co-authored with Kostas Gkonis, former LMT member, and also attended the SNAME Executive Committee and Council meetings, in his capacity of SNAME International Regional Vice President.

The highlight of the Annual Meeting was the formal banquet, where SNAME presented its highest awards, honors and medals in front of some 800 participants. In the 119 year history of SNAME, the banquet always started with the singing of the US and Canadian anthems and the display of their flags. This year the Greek Section and its members were honored with the display of the Greek flag and the singing by the students of the Greek National Anthem.



The Greek Section attendees at the Annual Banquet

Among the 8000 members that SNAME has around the world, Greece has the highest number of members (some 320) outside of North America and the Greek Section was recognized by receiving the Top Super Section Banner as it was chosen then best Section among all 16 Sections that SNAME has.

7th Logistics GreenPort Congress



The 2012 GreenPort Congress was organised in Marseille, France to provide business information on environmental best practice and corporate responsibility centered around marine ports and terminals. The new ESPO Green Guide, aiming at inciting port authorities to continuously improve their environmental performance, was launched at the event. The event was attended by LMT's George Panagakos. He presented the paper "Green corridors and the SuperGreen Project", which attracted a lot of attention by the participants. In view of this interest, the editors of the GreenPort Journal invited LMT to prepare an article on corridor benchmarking for their winter issue, which has already been published.

16th National Logistics Conference



Optimizing
Supply Chains

George Panagakos of LMT participated in the 16th National Logistics Conference, organized by the Greek Society of Logistics in Zappeion on 2 and 3 November 2012. The conference, titled "Optimizing Supply Chains", attracted more than 200 participants from the logistics and other related industries and institutions. The message conveyed was that logistics can assist in the development of the Greek economy. G. Panagakos gave a presentation on "Green Corridors in Freight Logistics and the SuperGreen Project" (in Greek) describing the green corridor concept and summarizing the results of the SuperGreen corridors.



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Center of Excellence seminar in Piraeus



On October 17, 2012, a public seminar was held in the premises of Hellenic Lloyd's in Piraeus, to present progress in the context of the NTUA Centre of Excellence (CoE) in Total Ship Energy- Emissions- Economy. The CoE is funded by The Lloyd's Register Educational Trust (The LRET) and its activities span the period 2010-2015. LMT is, along with the NTUA Laboratory of Marine Engineering, a key pillar of the CoE. Mr. Michael Franklin, Director of The LRET, attended this event, which was also attended by representatives of the Greek maritime industry in Piraeus.

S.O.M.E. 2012 symposium



The 4th Biennial International Symposium on "Ship Operations, Management and Economics" (SOME), organized by the Greek Section of the international Society of Naval Architects & Marine Engineers (SNAME) and SNAME's European Regional Office (SERO), took place on November 8 & 9, 2012 at the Eugenides Foundation auditorium in Athens. The symposium was under the auspices of the Hellenic Chamber of Shipping. Some 100 persons registered for the symposium, see group photo at the bottom.

The keynote address was delivered by Mr. Andreas Chrysostomou, chairman of the Marine Environmental Protection Committee (MEPC) at the IMO, on the latest IMO developments. Some 25 high-caliber papers were presented.



*Prof. Psarafitis presents a gift to Mr. Chrysostomou.
At right: Prof. Papanikolaou.*

LMT contribution to the organization of SOME 2012 was significant. The chairman of this symposium was Harilaos Psarafitis and the chairman of the papers committee was Nikolaos Ventikos. In addition, a total of 4 papers authored or co-authored by LMT staff were presented.

The registration fees were kept low thanks to the sponsors: The Stavros Niarchos Foundation and Bureau Veritas (grand sponsors), and American Bureau of Shipping; Atlantic Bulk Carriers Management Ltd; Danaos; DNV and Lloyd's Register (sponsors). Several maritime newspapers and magazines were sponsors-in-kind.





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Pacific bound



Looks like there will be quite a maritime crowd in California in June. Some 60 abstracts have been received for the upcoming workshop of the Transportation Science and Logistics (TSL) section of INFORMS on maritime transportation and port logistics, which will be held in Asilomar Conference Grounds in Pacific Grove, California from 16 to 19 June 2013. Harilaos Psaraftis is one of the workshop's 4-member organizing committee, chaired by Kevin Furman of ExxonMobil. Psaraftis is also the guest editor of a focused issue of "Transportation Science" on the same topic. Participation in the workshop is not a prerequisite for submitting a paper to the focused issue, whose submission deadline is May 31, 2013.

For more details on the workshop please visit this link:

<http://www.informs.org/Community/TSL/TSL-Workshop>

LMT onboard the new EC funded project CyClaDes

NTUA-LMT is member of the consortium of the new EC-funded project "Crew-centered Design and Operations of ships and ship systems" (CyClaDes); this project is designed to promote the increased impact of the human element in shipping across the design and operational lifecycle. The project brings together a multi-disciplinary team to focus on all the key steps in the lifecycle; the stakeholders; where the barriers to human element integration occur; and how to best locate, produce, disseminate, and apply human element knowledge within the overall context of shipping. The advantage is realized by supporting the integration of the human element in the design and operational life-cycle from appreciation, to concept, to design, to application, to evaluation and approval, to maintenance. The outcome will directly address pressing needs identified in the shipping industry and specifically by this call. The concepts for human element integration are there but the challenge that remains is to develop, apply, and evaluate these concepts in a way that produces tangible results for multiple key stakeholders involved in the design and operation of a variety of shipboard areas and processes. The CyClaDes project plan accepts this challenge by introducing a user-centered perspective for key stakeholders (i.e., designers, operators, authorities, end-users), through a framework that captures, "translates", and

disseminates usable tools, methods, and information to provide maximum support for the human element across all stages of design and operation. The outcome of the project will help to increase the safety for ship, crew, cargo and consequently the environment by:

- Increasing researchers' understanding of stakeholders, including when human element input can best be applied, in what format, and what the barriers are;
- Assembling existing applicable knowledge (i.e., guidelines, tools and methodologies) from maritime and other domains into an easy to use format for the end user;
- Developing and applying selected methodologies in order to demonstrate their use and impact in the shipping context.

The CyClaDes project is of 3 year duration (Oct 2012 – Sep 2015), it is funded by the RTD Directorate and it is led by GL. The Kick-off meeting of CyClaDes took place at Hamburg, Germany on Oct 30, 2012.

MEETINGS AND EVENTS

attended by LMT staff

- MEPC 64, IMO, London, UK, Oct.1-5, 2012.
- 4th Iron Ore & coal World Shipping Summit 2012, Oct. 1, Athens, Greece.
- XX Triennial Int. Conference on Material Handling, Constructions and Logistics, Oct. 3 to 5, Belgrade.
- 7th Logistics GreenPort Congress, Oct. 3-5, Marseille, France.
- 1st LRET-CoE on Ship Total Energy-Emissions-Economy, Oct. 17, Piraeus, Greece.
- SNAME Executive Committee Meeting, Providence, Rhode Island, USA, Oct. 23, 2012.
- SNAME Council Meeting, Providence, Rhode Island, USA, Oct. 24, 2012.
- SNAME 2012 Annual Meeting, Providence, Rhode Island, USA, Oct. 24-26, 2012. 16th National Logistics Conference, Nov. 2-3, Athens, Greece.
- 4th SNAME International Symposium on "Ship Operations, Management & Economics" (SOME 2012), Nov. 8-9, 2012, Athens, Greece.
- Newsfront/Naftiliaki Greener Shipping Summit 2012, Nov. 13, Athens, Greece.
- FSA Expert Group Meeting, IMO, Nov. 21-23, 2012, London, UK.
- TEN-T Days 2012, 28-29 Nov. 2012, Brussels, Belgium.
- Lloyds List Greek Shipping Awards, Dec. 7, 2012, Athens, Greece.



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PAPERS, PRESENTATIONS & SPEECHES

published / presented by LMT staff

- Panagakos, G.P. and Psaraftis, H.N., "Green corridors and the SuperGreen Project", 7th Logistics GreenPort Congress, Oct. 3-5, Marseille, France.
- Psaraftis, H.N. and Panagakos, G., "Green Corridors in Freight Logistics and the SuperGreen Project" (in Greek), 16th National Logistics Conference, Nov, 2, Athens, Greece.
- Panagakos, G.P. and Psaraftis, H.N., "Green Corridors and the Trans-European Transport Network", 4th International Symposium on "Ship Operations, Management & Economics" (SNAME), Nov. 8-9, Athens, Greece.
- Panagakos, G.P. and Psaraftis, H.N., "Benchmarking of green corridors", GreenPort Journal, winter issue 2012, pp 16-17.
- Ventikos N.P., Lykos G.V., Vagias N.A. (2012), "Human Fatigue: Evaluation with the Usage of Bayesian Networks", Computational Intelligence Systems in Industrial Engineering – With Recent Theory Applications, Atlantis Press, (Ed.: Kahraman C.), ISBN: 978-94-91216-76-3, Paris, France, pp. 651-676.
- Ventikos N.P., Chatzinikolaou S.D. (2012), "Total Environmental Footprint of Ships: Development of the Framework", Book of Marine Technology, Hellenic Institute of Marine Technology, Piraeus, Greece, pp. 109-119 (in Greek).
- Ventikos N.P., Xakoustis S. (2012), "The concept of risk: the new wave with a flavor of objectivity", Proceedings of the 4th International Symposium on Ship Operations, Management and Economics", ISBN: 978-618-80301-0-7, Athens, Greece, CD-ROM.
- Panagakos, G.P. and H.N. Psaraftis, "Green Corridors and the Trans-European Transport Network", Proceedings of the 4th International Symposium on Ship Operations, Management and Economics", ISBN: 978-618-80301-0-7, Athens, Greece, CD-ROM.
- Stamatopoulou, I.V. and H.N. Psaraftis, "New Regulations & Climate Change: Effect on Modal Split & Modal Choice", Proceedings of the 4th International Symposium on Ship Operations, Management and Economics", ISBN: 978-618-80301-0-7, Athens, Greece, CD-ROM.
- Psaraftis, H.N., "Transportation by sea – Is shipping a really environmentally friendly industry?" Newsfront Naftiliaki Greener Shipping Summit, Athens, Greece, Nov. 13, 2012

PICTURE GALLERY



*LMT Christmas lunch, December 2012: Petrogrigoris Ventikos is having an argument with LMT staff members Christos Kontovas and Stefanos Chatzinikolaou
At right: Zoe Ventikos.*



NTUA student Yvonne-Effrosyni Damianidou presenting a paper at the SNAME Annual Meeting.



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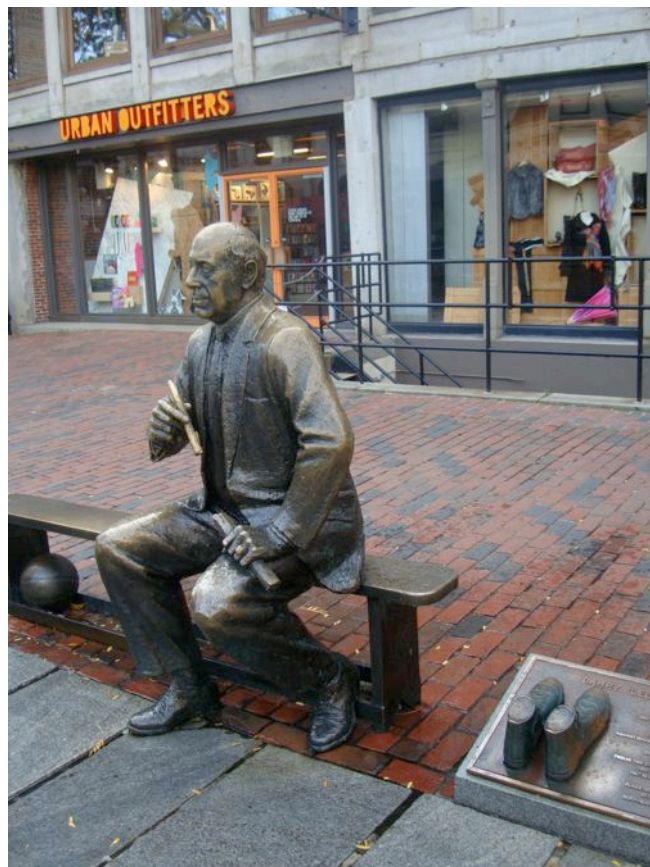
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The Greek gang at the SNAME Annual Meeting luncheon.



LMT Christmas lunch, December 2012.



*Taking time off the SNAME Annual Meeting:
Celtics legend Red Auerbach and
Larry Bird's shoes in Boston's Faneuil Hall.*



*The SNAME Council in session, Providence Westin,
October 2012.*



*Members of the IMO Greek delegation enjoying a rare
London sun at lunch break at MEPC 64 (October 2012).*