

"GST 09 was in many aspects a much needed eye opener for an industry running behind public pressure."

(J Lundman, Stora Enso Logistics)

The 'must-attend' green shipping event for 2010

7th Annual Green Ship Technology

Meeting the green technology challenges for sustainable shipping

Tuesday 16th & Wednesday 17th March 2010

Radisson Blu Scandinavia Hotel, Copenhagen, Denmark

Book by 15th January 2010 & SAVE up to £300

Event Highlights:

- Regulatory Review: implications of global developments on emissions reduction for the maritime industry
- Practical Solutions: technical analysis of design and operational efficiency
- Environmental Management: effective vessel management for cleaner, greener shipping
- Focus on the Danish 'Green Ship of the Future' project
- The 3rd Green Ship Technology Award
- Conference Gala Dinner

PLUS New for 2010

- Two Breakfast Briefings: focus on kite-assisted propulsion and shore-side power
- Shipowner/operator and manufacturer problem-solving panels
- Choice of concurrent streams for technical and environmental management sessions
- Quickfire Technology Showcase - present your technology
- Site Visit to MAN Diesel's DieselHouse Museum and Test Bed Facility

POST-CONFERENCE WORKSHOP

Thursday 18th March 2010

A Practical Guide to Performance Monitoring:
How to Increase and Improve Technical Fleet Management and Efficiency

Keynote Address:

- Lene Espersen, **Minister for Economic and Business Affairs, Denmark**

Speakers will include:

- Robert Ashdown, Head of Technical Division, **Chamber of Shipping, UK**
- Lars Vang Christensen, CEO, **herning shipping a.s.** & Chairman, **Danish Shipowners' Association**
- Capt Johan Ludvig Eidem, Manager Shuttle Projects, **Teekay**
- Claus Usen Jensen, Executive Vice President, **Torm**
- Dirk Lehmann, Managing Director, **Becker Marine Systems** & Vice-Chairman, **EMEC**
- Niels Bjørn Mortensen, Chief Marine Technical Officer, **BIMCO**
- Søren Skou, Partner & Member of Group Executive Board, **AP Møller-Maersk A/S**
- Bjørn Stignor, Chartering Manager, **Stena Bulk**
- David Tongue, Marine Manager, **International Chamber of Shipping**

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Official Publications:

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Registration Hotline: +44 (0)20 7017 5511

For latest programme and to book online, please visit: www.greenshiptechnology.com

Researched and Developed by:

informa
maritime events

7th Annual Green Ship Technology

A Message from the Danish Maritime Community

Dear Colleague

This international Green Ship Technology conference, organised by Informa Maritime Events and now in its 7th year, comes at a time of rapid developments for the maritime community in terms of meeting the various environmental challenges posed by the increasing focus on shipping's effect on the environment and climate change.

It is with great pleasure that we support what promises to be a stimulating as well as a necessary event.

The programme that the organisers have put together covers key environmental issues facing the industry today, from developing technological innovations and efficient design to reduce shipping's environmental impact, to individual companies' roles in developing corporate responsibility plans to create effective environmental and vessel management plans.

In addition, we are very proud to present the Danish 'Green Ship of the Future' project which has been ongoing within our community for two years now. 'Green Ship of the Future' highlights the enormous effort and input being made to create an environmentally friendly industry and the extensive environmental gains which can be achieved.

We look forward to seeing you at this important international meeting here in Copenhagen, and to learning the latest on technical advances and practical advice from a first-class panel of speakers.

Yours sincerely

Danish Shipowners' Association **Danish Maritime**

Past Attendees Include:

Aalborg Industries AS
ABB Oy Marine
ABS
Aida Cruises
Alantum Europe GmbH
Alfa Laval Tumba AB
Algoma Central Marine
Antwerp Maritime Academy
Ap Mller-Maersk
Argillon GmbH
Asp Ship Management Group
Becker Marine Systems
Beluga Fleet Management
Bolfilter Nordic
Boskalis BV
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BV Rederij G Doeksen
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Chevron Oronite Technology BV
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Fkab Marine Design
Fluid Imaging Technologies Inc
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Furtrans Denizcilik
Futureship GmbH
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Greensea
Gusto BV
Hamann Wassertechnik GmbH
Hapag Lloyd
Heerema Marine Contractors BV
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Netherlands Shipping Inspectorate
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Novoship JSC
Odffell Tankers AS
Oldendorff Carriers GmbH & Co KG
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Port Of Antwerp
Port Of Gothenburg AG
Port Of Helsinki
Port Of Rotterdam Authority
Rcl Uk Ltd
Reederei Blue Star GmbH
Rickmers Reederei
Rolls Royce Marine
Rolls Royce Marine Benelux BV
Royal Belgian Shipowners Assoc
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Samsung Heavy Industries
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Skysails GmbH & Co Kg
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Stena Rederi Ab
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Testo AG
Tidewater Marine LLC
Transatlantic Fleet Services AB
Tufton Oceanic
Universal Shipbuilding Europe Ltd
Usom Marine Ab
Valles Steamship Canada Ltd
Vickers Oils
Viking Line
Wagenborg Shipping
Wartsila Finland Oy
Wartsila Switzerland Ltd
Wilh. Wilhelmsen
Yarwil AS
Zeppelin Skysails Sales & Service GmbH & Co KG

"A good overview of the status of environmental legislation regarding shipping in combination with interesting presentations on ways to make shipping greener."

(T Jukes, Chevron Cronite)



To Register Call the Booking Hotline: +44 (0)20 7017 5511

The 3rd Green Ship Technology Award 2010

Awarded to the most innovative technology put into use in the past year to benefit the marine environment.

- This award will acknowledge the most innovative technology put into use since March 2009 which has shown a benefit to the marine environment.
- The nominations will be judged by a panel of shipping industry experts and is open to maritime technology manufacturers to submit entries for consideration or to be nominated by shipowners or operators.
- The aim of this Award is to recognise and acknowledge the continued improvement in the effort to maintain the marine environment and mitigate the effects of shipping on the environment.
- All entries/nominations should be submitted by 31st January 2010 by email to vanessa.darnborough@informa.com. The judging panel will judge entries in February 2010. The winner will be presented with the Award at the Green Ship Technology conference gala dinner on Tuesday 16th March.

For further information contact Vanessa Darnborough on email: vanessa.darnborough@informa.com



Winner of 2nd Green Ship Technology Award with the conference chairman

"It is a great honor for SkySails being awarded the 'Green Ship Technology Award 2009'. 'Green Shipping' is one of the main topics and challenges facing the maritime industry of today and we are proud to receive this recognition for the contribution and high potential of the innovative SkySails technology towards a sustainable future in shipping."

Stephan Wrage, Managing Director, SkySails

Bronze Sponsor:



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DNV is a global provider of services for managing risk, helping customers to safely and responsibly improve their business performance. DNV is an independent foundation with the purpose of safeguarding life, property and the environment. Through its network of 300 offices in 100 countries, DNV serves a range of industries, with a special focus on the maritime and energy sectors, combining its technology expertise and industry knowledge.

Sponsors to date:

USON MARINE

Usou Marine is a leading provider of waste management systems for the maritime and offshore industry. We can assist in each stage of the process from design to installation, surveys, commissioning and crew training. By using our wide knowledge and experience we assist our clients in complying with current and future regulations, whilst at the same time improving their environmental image and reducing their cost for handling of ship-generated waste. www.usonmarine.com



LIFE MATTERS

Lloyd's Register works around the world to assess and certify ships, systems and facilities to improve quality and increase safety. We work with shipowners, operators and builders to provide innovative, value added solutions that help improve performance in ship design, construction and operation. We respond to change and lead developments that make lives safer and help preserve the environment.

Our environmental services include: approval and verification services for newbuilds and existing ships to help owners comply with the Ship Recycling Convention; support in understanding new ballast water technologies; and fuel and environmental analysis services.

For Lloyd's Register, life matters.



TORM is one of the world's leading carriers of refined oil products as well as a significant participant in the dry bulk market. The Company operates a combined fleet of more than 140 modern vessels, principally through a pooling cooperation with other respected shipping companies who share TORM's commitment to safety, environmental responsibility and customer service.

Founded in 1889, the Company conducts business worldwide and is headquartered in Copenhagen, Denmark with shares listed on NASDAQ in Copenhagen and New York.

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Sponsorship and Exhibition Opportunities

Informa Maritime Events has a number of exhibition and sponsorship opportunities attached to this event giving your organization invaluable contact with the delegate audience. Sponsorship packages can be tailored to meet your strategies, objectives and promotional budget. To discuss the requirements of your organization, contact Paul Skinner on +44 (0)20 7017 4402 or email him at paul.skinner@informa.com

7th Annual Green Ship Technology

NEW for 2010:

4 TECHNICAL STREAMS - on design efficiency, operational efficiency, discharges to sea and environmental management. A combination of focussed presentations, panel discussions and audience feedback.

NEW FOCUS - The 'Green Ship of the Future' Project. Members of the Danish project 'Green Ship of the Future' will demonstrate the thinking behind this far-reaching research and development project which aims to provide practical results for shipowners, operators and marine equipment suppliers.

PROBLEM SOLVING PANEL DISCUSSIONS - shipowner/operator and manufacturer panels will examine the crucial questions facing the maritime industry today in meeting current and future regulatory obligations for sustainability and greener shipping.

BREAKFAST BRIEFINGS - update on recent research on two crucial aspects of green ship technology: kite assisted propulsion and shoreside power. Places are limited and allocated on a first come first served basis so book your conference place now to avoid disappointment.

NEW PERFORMANCE MONITORING WORKSHOP - Thursday 18th March 2010 – understand the challenges and benefits of performance monitoring, guided by the expert panel, to increase and improve your fleet management and efficiency.

SPEEDY BUSINESS CARD EXCHANGE - An excellent way to meet a lot of delegates and speakers fast! Maximise your time at this event in this informal and effective networking setting.

QUICKFIRE TECHNOLOGY SHOWCASE - Present your technology and be cheered on in a friendly, relaxed environment. Ten technology providers will have two minutes each to convince our audience and the shipowner judges of their technologies' USPs. If you would like a chance to present your technology, sign up at the event and 10 names will be randomly selected on the first morning.

Monday 15th March 2010

1400-1700 Visit to MAN Diesel's DieselHouse Museum and Test Bed Facility

A visit has been arranged to the MAN Diesel's DieselHouse Museum which features an extensive exhibition of diesel technology, including a wide selection of unique engine models. In addition, visitors will have the opportunity to visit the MAN Diesel test bed facility. Transport will be provided to and from the conference hotel.

1800-2000 Welcome Drinks Reception

Hosted by the Danish Shipowners' Association at Amaliegade 33, Copenhagen

DAY ONE: Tuesday 16th March 2010

0830 Registration and coffee

PLENARY SESSION:

Conference Chairman: Andreas Chrysostomou, Coordinator of Multilateral Affairs, Dept of Merchant Shipping, Cyprus and Chairman, MEPC, IMO (invited)

0925 Chairman's welcome

0930 Environmental regulatory update affecting shipping

- Report from recent IMO meetings
- What is the latest state of regulations?

David Tongue, Marine Manager, International Chamber of Shipping

European proposals and timetable for GHGs in shipping

Mark Major, Policy Officer, DG Environment, European Commission (invited)

1015 Future trends in clean air initiatives, ECA development and fuel availability

- What are the prospects for supplies of LSF in light of increased demand due to changes in regulations?
- What are longer term prospects? How might new ECAs impact on demand? What could be the impact on total CO₂ emissions? US/Canada proposals for an ECA and requirements for operators
- What emission reduction initiatives have been undertaken in US ports that show the way forward for other ports and regions?

Athena Bertolino, Associate, Ross and Associates Environmental Consulting

Kjeld Aabo, Director 2 Stroke Promotion, MAN Diesel

1100 Coffee and networking break

STREAM ONE:

DESIGN EFFICIENCY & TECHNOLOGY INNOVATIONS

Conference Chairman: Andreas Chrysostomou, Coordinator of Multilateral Affairs, Dept of Merchant Shipping, Cyprus and Chairman, MEPC, IMO (invited)

1130 Impact of the Energy Efficiency Design Index (EEDI) on short sea shipping

- Principle of EEDI
- Baseline definitions
- Application problems

Prof Dr-Ing Stefan Krüger, Institute of Ship Design and Ship Safety, Head of Institute TU Hamburg-Harburg

1150 Fluid dynamic options for reducing CO₂ emissions

- Hull lines design for reduced emissions
- CFD trimming assistance for onboard use

Dr Karsten Hochkirch, Vice President, Fluid Engineering, FutureShip GmbH

1210 STX Europe Eoseas green cruise ship concept

- Case study of a ship design integrating technical solutions in energy, air emissions, water and waste management, and sustainable design

Thibaut Tincelin, Manager, Stirling Design International
Erick Pelerin, Manager of Ecorizon Program, STX Europe

1235 Case Study: The Stena E-MAXair

- EMAXair and sister
- Air cushion function and idea
- Bulbous bow
- LNG propulsion

Björn Stignor, Chartering Manager, Stena Bulk

1300 Lunch

STREAM TWO:

DISCHARGES TO SEA

BALLAST WATER MANAGEMENT

Chairman: David Tongue, Marine Manager, International Chamber of Shipping

- 1130 **An independent review of BWT systems reaching market since 2008, and IMO/MEPC update**
- Range of current certified BW technologies
 - Variations in the BWT certification process (G8 / G8+G9)
 - Challenges facing large DWT ships
 - Alternatives to installing a certified BWT system
- Dr Robert Hilliard**, *Managing Consultant, InterMarine Consulting Pty Ltd*
- 1155 **Sampling for enforcement**
- EU view and Ballast Water Convention update
 - Enforcement issues
- Brian Elliott**, *Senior Project Officer on Environmental Protection, EMSA*
- 1220 **US ballast water legislation proposals**
- Existing requirements and regulations
 - USCG proposals for ballast water discharge standards and type approval programme
- 1245 Questions and discussion
- 1300 Lunch

PLENARY SESSION:

- 1400 **Keynote Address:**
- Lene Espersen**, *Minister for Economic and Business Affairs, Denmark*
- 1420 **Opening Session: Regulation of shipping and the way forward after COP15**
- Lars Vang Christensen**, *CEO, herning shipping a.s., and Chairman, Danish Shipowners' Association*
- 1435 **The implications for green ship technology from COP15 and other global developments**
- Søren Skou**, *Partner & Member of Group Executive Board, AP Møller-Maersk A/S*
- 1450 **PANEL: Global emissions reductions policies**
- What is the current situation regarding market based instruments for international shipping?
 - What is the likely commercial and economic impact of the proposed schemes?
- Panellists: Robert Ashdown, Head of Technical Division, Chamber of Shipping, UK*
- Christian Breinholt**, *Director, Danish Maritime Authority*
- Lanfranco Benedetti**, *Technical Director, Community of European Shipyards' Associations (CESA)*
- Mark Major**, *Policy Officer, DG Environment, European Commission (invited)*
- Niels Bjørn Mortensen**, *Chief Marine Technical Officer, BIMCO*
- Michael Prehn**, *Deputy Director of Danish Maritime, Member of EMEC Working Group on Climate Change and Environment*
- 1530 Tea break and Speedy Business Card Exchange

STREAM ONE (CONT'D):

DESIGN EFFICIENCY & TECHNOLOGY INNOVATIONS

- 1550 **The Amundsen Class design project**
- Design and development of an eco-friendly shuttle tanker concept
 - Ensuring sustainable offshore loading logistics
- Capt Johan Ludvig Eidem**, *Manager Shuttle Projects, Teekay*
- 1615 **Hydrodynamic optimization of a container vessel for a broad operation profile**
- Changbae Jin**, *Naval Architect, DSME*
- Troels Posborg**, *Senior General Manager, Head of Hull Section, Ship Engineering - Maersk Maritime Technology, AP Møller-Maersk A/S*
- John Richards**, *Naval Architect, HSWA*
- 1645 **Developments in alternative power sources: LNG, fuel cells and solar power**
- Representative, ABS*
- 1710 **What is the scope and opportunity for biofuels?**
- Developments in use of biofuels as marine fuel
 - Results from a seagoing project using biofuels
- Timothy Wilson**, *Principal Specialist Engineer, FOBAS Product Manager, Marine Consultancy Services, Lloyd's Register EMEA*

- 1735 **Designing for green ship recycling**
- Robin Townsend**, *Lead Specialist, Ship Recycling, Lloyd's Register*
- Mika Ojutkangas**, *Senior Manager, Sales Engineering, Wärtsilä Finland*
- 1800 **PANEL: What are manufacturers and shipyards doing to cope with the regulatory imperatives and help shipowners meet their obligations?**
- PANEL*
- Moderator: Hans-Georg Payer, Germanischer Lloyd*
- Panellists: Ernst-Christoph Krackhardt, Director, Life Cycle Management, Siemens AG and Chairman, EMEC Working Group on Climate Change and Environment*
- Dr Reinhard Lüken**, *Secretary-General, Community of European Shipyards' Associations, (CESA)*
- Diego Meseguer Yebra**, *Manager Fouling Control, Hempel*
- 1830 Close of day one

STREAM TWO (CONT'D):

DISCHARGES TO SEA

- 1555 **PANEL: Ballast water management systems – what are the practical issues relating to newbuilds and retrofitting, and choosing the right system?**
- Panellists: Dr Birte Clason, Product Development Manager, Aalborg Industries Water Treatment Ltd*
- Per Warg**, *Business Manager, PureBallast, Alfa Laval Representative, Wilhelmsen Ships Equipment AS*

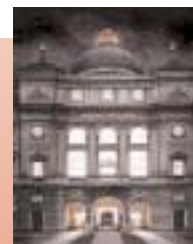
WASTE MANAGEMENT ONBOARD, IN PORT AND IN YARDS

- 1640 **Treatment of bilge water onboard and innovations in oily water separators**
- What are the latest changes in oily water separators?
 - Test requirements and regulations
- Angelo Tossio**, *Project Manager, DNV Maritime*
- Benny Carlson**, *President, Marinfloc*
- 1705 **The NPDES permits programme: Experience so far**
- The Vessel General Permit
 - Monitoring and enforcement
 - Training and inspections
- 1730 **Grey water management**
- What is grey water?
 - Update on grey water regulations
 - Impacts on managing and generating waste
 - Future grey water issues
- Debra DiCianna**, *Senior Environmental Engineer, The Columbia Group – Rosenblatt Ship Design Division*
- 1755 **Port reception facilities/best practice**
- What is the current situation for port reception facilities?
 - Update on the IMO's FSI sub-committee work on port reception facilities
 - What facilities should shipowners and operators be looking for in ports?
 - What should ports be doing?
- Capt David A Condino**, *OCS/MARPOL Manager, Safety Brand Ports and Facilities Division, Office of Port and Facility Activity, US Coast Guard (invited)*
- 1830 Close of day one

1900 Conference Gala Dinner and Award Ceremony

Join your fellow conference attendees at the unique Restaurant Teaterkælderen for the Conference Gala Dinner and Award Ceremony.

Restaurant Teaterkælderen is an original and theatrical venue, with waiters who are also artists and performers and will entertain the guests during the evening. An excellent opportunity for informal networking with your industry colleagues. See back of brochure for further details, transport is provided to and from the conference hotel.



TWO BREAKFAST BRIEFINGS:

- 0800 **Kite assisted propulsion research**
- A demonstration of the potential of kite propulsion as a means to reduce fuel consumption and hence GHG emissions from merchant ships through presenting:
 - an improved model of the forces generated by a kite in dynamic flight,
 - a simulation of kite forces coupled with required propeller thrust and engine performance to predict fuel consumption and savings,
 - case-study application for a vessel on a trans-Pacific route,
 - a formal safety assessment to identify potential hazards in the practical use of kites as a means of auxiliary propulsion.
- Dr Dominic Hudson, Senior Lecturer, University of Southampton*
- 0800 **Saving energy in port: Shore-side power**
- Analysis of shore-side power as a cost effective option for saving energy in port in response to the increased demand from port authorities for reduced emissions from shipping
 - Standards and potential cost savings
- Luciano Corbetta, Marine Division Manager, Cavotec*
- 0855 Chairman's welcome

**STREAM ONE:
OPERATIONAL EFFICIENCY AND TECHNOLOGY**

Chairman: Andreas Chrysostomou, Coordinator of Multilateral Affairs, Dept of Merchant Shipping, Cyprus and Chairman, MEPC, IMO (invited)

- 0900 **Case Study: A shipowner's experience of fuel saving initiatives**
- CASE STUDY**
- A review of one company's holistic approach to fuel saving:
 - involving people, technology, design and operation, onboard and onshore
- Jakob Buus Petersen, Chief Specialist, AP Moller-Maersk A/S*
- 0925 **Developing the future for dual fuel engines**
- Mika Ojutkangas, Senior Manager, Sales Engineering, Wärtsila Finland*
- 0950 **Case Study: Fuel efficient slow steaming: main engine and propeller options**
- CASE STUDY**
- Costs and benefits associated with re-optimising the main engine and propeller system for the reduced power demand
- Lyn Bodger, Managing Director, Stone Marine Propulsion*
Claus H Jespersen, Naval Architect and Project Engineer, MAN Diesel
- 1015 **Real-world application of nano-technology for efficiency in a marine environment**
- Practical use of nano-technologies in engines
 - A case study of our NanoVit technology in action on a real ship
 - An economical case for environmental efficiency
- Simon Goldsmith, Business Development Manager, Efficiency Technologies*
- 1040 Coffee and Speedy Business Card Exchange
- 1110 **Case Study: Practical results from a CO2 reduction technology**
- CASE STUDY**
- Reducing CO₂, SOx and NOx in a single process
 - Data from recent tests onboard
- Representative, Ecospec*
- 1135 **Case Study I: Meeting the requirements of a SECA with exhaust gas cleaning systems**
- CASE STUDY**
- Pilot SOx scrubbing system: installation and operation of new technology
 - Costs and benefits
- Angelo Tossio, Project Manager, DNV Maritime*
- 1155 **Case study II: Meeting the requirements of a SECA with exhaust gas cleaning systems**
- CASE STUDY**
- Britt-Mari Kullas-Nyman, General Manager, Environmental Services, Business Development, Wärtsila Corporation*

- 1215 **PANEL: Abatement technology – what are the options?**
- PANEL**
- Ralf Jürgens, Head of R&D, Couple Systems GmbH*
Olav Knudsen, General Manager R&D, Green Technology, Aalborg Industries
Britt-Mari Kullas-Nyman, General Manager, Environmental Services, Business Development, Wärtsila Corporation
Chris Leigh-Jones, Salse Consultant, Hamworthy Krystallon Ltd and Director, Kittiwake Developments Ltd
Representative, Ecospec

- 1245 **SHIPPING INDUSTRY PANEL: Managing the changes expected to reduce shipping's impact on the environment**
- PANEL**
- How do shipowners do this in the time available set by regulations and at a reasonable cost? What are the best solutions? What are the charterers' responsibilities?
- Panellists: Capt Johan Ludvig Eidem, Manager Shuttle Projects, Teekay*
Claus Usen Jensen, Executive Vice President, Torm
Bjørn Stignor, Chartering Manager, Stena Bulk

- 1315 Lunch
- Quickfire Technology Showcase**
- Ten technology providers will have two minutes each to convince our audience and the shipowner judges of their technologies' USPs. If you would like a chance to present your technology, sign up at the event and 10 names will be randomly selected on the first morning.
- see www.greenshipstechnology.com for further details

**STREAM TWO:
EFFECTIVE ENVIRONMENTAL AND VESSEL MANAGEMENT**

Chairman: Niels Bjørn Mortensen, Chief Marine Technical Officer, BIMCO

- 0855 Chairman's welcome
- 0900 **Sustainability: Why it should be core to a future business model**
- A shifting agenda - Sustainability as the license to operate and differentiate
 - Show me the money (What's the point - and the ROI?)
 - Mobilization the stakeholders - while creating demand and innovation
 - Value Chain Collaboration - forging new alliances in order to tackle wicked problems
- Søren Stig, Senior Director - Head of Sustainability, Maersk Line*
- 0925 **Case Study: Implementing a corporate social responsibility programme**
- CASE STUDY**
- Maintaining the environmental management system
 - Improving attitudes onshore and onboard
 - Reducing impact on the environment in daily operations
- Pia D Loft, Vice-President, CSR & Communications, Torm*
- 0950 **Increasing marine awareness in crew and staff**
- Update of recent IMO STCW developments
 - ProSea marine awareness courses
 - IMO Model Course project
 - Dedicated courses at naval academies, shipowners and the oil industry
- Edo Donkers, ProSea Foundation*
Sibrand Hassing, Dutch Ministry of Transport, Public Works and Water Management
- 1015 **SEEMP – A blueprint for efficient operations?**
- Niels Bjørn Mortensen, Chief Marine Technical Officer, BIMCO*
- 1040 Coffee and Speedy Business Card Exchange
- 1110 **Life Cycle Management: Ways to manage a vessel for longer life, lower cost and sustainability**
- Ernst-Christoph Krackhardt, Director, Life Cycle Management, Siemens AG and Chairman, EMEC Working Group on Climate Change and Environment*

1135 **PANEL: Onboard monitoring: What are the benefits and drawbacks?**
PANEL *Panelists: Henk van den Boom, Manager, Trials and Monitoring, MARIN*
Kjeld Roar Jensen, Product Manager, FORCE Technology
Daniel Kane, Business Development, Propulsion Dynamics
Paul McStay, Manager – SMART Products, BMT Sea Tech Ltd
Representative, NAPA
Jakob Buus Petersen, Chief Specialist, AP Møller-Maersk A/S

1215 **DISCUSSION GROUPS: Delegates will split into small groups to discuss the practical issues relating to onboard monitoring and how this can be made effective**
PANEL

1315 Lunch

Quickfire Technology Showcase

Ten technology providers will have two minutes each to convince our audience and the shipowner judges of their technologies' USPs. If you would like a chance to present your technology, sign up at the event and 10 names will be randomly selected on the first morning.
 – see www.greenshiptechnology.com for further details

PLENARY SESSION:

1445 *Chairman: Andreas Chrysostomou, Coordinator of Multilateral Affairs, Dept of Merchant Shipping, Cyprus and Chairman, MEPC, IMO (invited)*

1450 **Opening Address:**

Dirk Lehmann, Managing Director, Becker Marine Systems and Vice-Chairman, EMEC

'Green Ship of the Future'

1510 **'Green Ship of the Future' project – a Danish initiative for development of environmentally friendly technologies in the maritime sector**

- Rationale for project, goals, participants

Mogens Schrøder Bech,

Head of Division Danish Maritime Authority

- Status of the project after nearly 2 years' work

Hans Otto Kristensen, Senior Researcher and Adjunct Professor, Technical University of Denmark

1540 **Case Study: Results from a scrubber pilot project**

CASE STUDY

- Project plans
- Practical application
- Results so far

Representative, DFDS

Jens Peter Hansen, Project Manager R&D, Exhaust Gas Cleaning, Aalborg Industries

1605 **The Alexander Maersk – retrofit and trial of an exhaust gas recirculation system**

Jean Otto de Kat, AP Møller-Maersk

Chris Underwood, Project Manager, MAN Diesel

1630 **'Lab on a ship'**

- RealTime analysis of bunker quality and emissions with 'Lab on a Ship'
- Practical results from two installations onboard ship

1655 Discussion

1710 Close of conference

Buy the Conference Proceedings!

You can purchase the **Green Ship Technology Conference** proceedings at just £380 (£400 overseas). For more information contact Customer Services on tel: +44 (0)20 7017 5502, fax: +44 (0)20 7017 4745 email: papers.info@informa.com

POST-CONFERENCE WORKSHOP:

Thursday 18th March 2010

A Practical Guide to Performance Monitoring: How to Increase and Improve Technical Fleet Management and Efficiency

An intensive one-day workshop designed to explain the principles of performance monitoring. An expert panel will use discussion, presentations and case study examples to develop best practice and meet the challenges and benefits of performance monitoring.

Topics to be covered include: collecting and evaluation of data, relaying data between ship and shore, understanding difference between manual and automatic monitoring and the benefits/ drawbacks of both systems, putting information received into effect to improve fleet management and maintain improvements. Learn how to use this effective tool to understand and improve fleet management and efficiency.

Workshop Leader: Henk van den Boom, Manager, Trials and Monitoring, MARIN

Speakers include: Daniel Kane, Business Development, Propulsion Dynamics

Paul McStay, Manager - SMART Products, BMT Sea Tech Ltd

0900 Registration and coffee

0930 Introduction

0940 **Technical performance v. operational performance**

- How to measure each performance

1030 Coffee

1045 **Measuring and benchmarking fleet performance**

- Different ways to measure and benchmark performance across the fleet and achieve fuel efficiency/optimisation
- Automatic monitoring versus manual monitoring: the benefits and drawbacks of both systems
- Collection and evaluation of data, ship/shore interface

1215 Interactive discussion session

1300 Lunch

1400 **Engine monitoring – long term and short term**

- Using monitoring to improve fuel efficiency

1500 Tea

1515 **Hull and propeller performance – Qualitative and quantitative analysis**

- Evaluating problems and deciding on solutions

1615 Interactive discussion session

1700 Close of workshop

Future Events:

Fuel Management, Ship Performance and Energy Efficiency, 26-27 January 2010, London

Ro-Ro Shipping, 23-24 February 2010, Amsterdam

KPIs for Shipping and Operations, 11-12 March 2010, London

6th Annual Arctic Shipping Conference, 26-28 April 2010, Helsinki

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Customer Services

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KT14 6WL, United Kingdom

VENUE DETAILS

Radisson Blu Scandinavia Hotel
Amager Boulevard 70
DK-2300 Copenhagen S
Denmark
Tel: +45 3396 5000
Fax: +45 3396 5500
Web: www.radissonblu.com

ACCOMMODATION DETAILS

The cost of accommodation is not included in the event fee. As a free service, reduced rate hotel accommodation can be arranged by contacting Zibrant.
Tel: +44 (0)1332 285590 Email: informa@zibrant.co.uk
Web: www.zibrant.co.uk/informa

SPECIAL REQUIREMENTS

Please list below any special requirements you may have

TERMS AND CONDITIONS

FEE: This includes all sessions, lunch, refreshments and available documentation. Bookings made within two weeks of the event must be accompanied by a credit card confirmation.
CANCELLATIONS: Cancellations received in writing two weeks before the event will be subject to a service charge of £250. It is regretted that cancellations received after this time cannot be accepted and are subject to the full event fee. Substitutions are welcome at any time. It may be necessary for reasons beyond the control of the organisers to alter the content and timing of the programme or the identity of the speakers. In the unfortunate event that an event is cancelled Informa are not liable for any costs incurred by delegates in connection with their attendance. This contract is subject to English Law.
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CONFERENCE DOCUMENTATION AVAILABLE

I am unable to attend, but please reserve me ___ set(s) of documentation @ £380 UK orders (£400 overseas). If you are unable to attend you can purchase the **Green Ship Technology conference** documentation at just £380 UK orders (£400 overseas). Simply tick the box within Step 1, send it with payment and your copy will be on its way to you after the event. This important manual will be the source of invaluable reference for the future. For further information call: +44 (0)20 7017 5522, fax: +44 (0)20 7017 4745 or email: papers.info@informa.com



STEP 1: CHOOSE YOUR PACKAGE (please tick option)

		Register by 15th January 2010	SAVE	Register by 19th February 2010	SAVE	Register after 19th February 2010	SAVE
CONFERENCE & WORKSHOP	16-18 MAR	<input type="checkbox"/> £1898 + 25% MOMS = £2372.50	£300	<input type="checkbox"/> £1998 + 25% MOMS = £2497.50	£200	<input type="checkbox"/> £2098 + 25% MOMS = £2622.50	£100
CONFERENCE only	16/17 MAR	<input type="checkbox"/> £1299 + 25% MOMS = £1623.75	£200	<input type="checkbox"/> £1399 + 25% MOMS = £1748.75	£100	<input type="checkbox"/> £1499 + 25% MOMS = £1873.75	
WORKSHOP only	18 MAR	<input type="checkbox"/> £699 + 25% MOMS = £873.75		<input type="checkbox"/> £699 + 25% MOMS = £873.75		<input type="checkbox"/> £699 + 25% MOMS = £873.75	
Conference Dinner		<input type="checkbox"/> £110 + 25% MOMS (£27.50) total £137.50		I am unable to attend, but please reserve me ___ set(s) of documentation @ £380 per set (£400 overseas)		Total £	

* The VAT rate is subject to change and may differ from the advertised rate. The amount you are charged will be determined when your invoice is raised.

GROUP DISCOUNTS AVAILABLE! (£200 discount for 3rd and subsequently registered delegates from the same company). All discounts can only be claimed at the time of registration and multi-booking discounts cannot be combined with other discounts that may be available. Further discounts are subject to approval. Please note the conference fee does not include travel or hotel accommodation.

STEP 2: DELEGATE DETAILS

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 Please charge my **credit card** (CVV: Last 3 digits on signature strip on back of credit card. AMEX - 4 digit number on front of card)

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