The 6th Gas Fuelled Ships Conference will address the use of LNG as a maritime fuel and introduce comparisons with other up and coming gas fuel options including Ethanol and Methanol. Presentations on fuel availability, cost, design implications, supply infrastructure, technology and operator feedback plus roundtable discussions will form part of the two day programme ensuring that information and knowledge sharing is at a maximum. The operator panel on ECA implementation and compliance will give attendees a valuable insight into how major operators such as Hapag Lloyd, Maersk Maritime Technology, Stena and Nordic Hamburg Shipmanagement are addressing the next deadline in 2020. Day three includes technical visits to the Methanol fuelled Stena Germanica ferry and the Becker Marine/AIDA Cruises’ LNG hybrid barge.

Members of BIMCO, VDR and ship operators qualify for special rates, contact the organisers for details.

10-12 November 2015
Grand Elysee Hotel, Hamburg, Germany

SUPPORTED BY:
BIMCO VDR MARITIME LNG PLATTFORM Danfoss LNG Initiative Danish Maritime SSA The Voice Of The UK Marine Industry SGMF

CONFERENCE PROGRAMME
Gas as a maritime fuel for ECA compliance in 2015 and beyond

The 6th Gas Fuelled Ships Conference will address the use of LNG as a maritime fuel and introduce comparisons with other up and coming gas fuel options including Ethanol and Methanol. Presentations on fuel availability, cost, design implications, supply infrastructure, technology and operator feedback plus roundtable discussions will form part of the two day programme ensuring that information and knowledge sharing is at a maximum. The operator panel on ECA implementation and compliance will give attendees a valuable insight into how major operators such as Hapag Lloyd, Maersk Maritime Technology, Stena and Nordic Hamburg Shipmanagement are addressing the next deadline in 2020. Day three includes technical visits to the Methanol fuelled Stena Germanica ferry and the Becker Marine/AIDA Cruises’ LNG hybrid barge.

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The Gas Fuelled Ships Conference is a Mercator Media Ltd event
Who should attend:
The Motorship Gas Fuelled Ships Conference is aimed at industry professionals who are looking to gain valuable information on using LNG as a maritime fuel, including ship owners and operators, policy makers, engine manufacturers, LNG carriers, LNG suppliers, ship builders, classification societies, ship designers, ship yards and port & terminal operators.

Venue
An award-winning, five star hotel, the Grand Elysee, is conveniently located in the centre of Hamburg, with easy public transport links and walking distance from NeuStadt and Jungfernstieg. It boasts three restaurants and bars, in addition to the Elysee Wellness and Spa. Offering sweeping views of Moonwidelpark, the upper-floor rooms provide guests with a wonderful space to unwind after a day of business.

DAY ONE – TUESDAY, 10 NOVEMBER 2015

08.00 COFFEE & REGISTRATION
08.45 Introduction by the day one Chairman
Martin L. Shaw, Managing Director, MOAMS Ltd
09.00 OPENING SESSION
Welcome address: Georg Ermann, Managing Director, German Maritime LNG Plattform
Keynote addresses:
Speaker Bsc, DG Environment or DG Move, European Commission
Jason Smith, PMP Commander, U.S. Coast Guard, Detachment Chief, USCG Liquefied Gas Carrier National Center of Expertise
Development of the IGF Code, Dr Geri Wursy, Business Director LNG Fuelled Ships, DNV GL

09.45 LNG as a marine fuel – how does it fit with the regulatory requirements and aims to reduce the climate impact of shipping? A holistic view on LNG fuel’s footprint on health, safety and environment, locally and globally
Lars Robert Pedersen, Deputy Secretary General, BIMCO
LNG is a lower carbon fuel which burns cleanly as most other marine fuels. At the same time, the fuel itself is a gas with a high Global Warming Potential. It is also a fuel that is more demanding, making storage and handling challenging onboard and during bunkering. Safety of ships is a paramount issue, and how does LNG fit? Join a comprehensive walk through the, at times, conflicting aspects of using LNG to fuel ships.

Session 1 – How does LNG currently compare to other ECA compliant fuels?
10.00 Fuels for compliance – the current availability and usage of maritime fuels in ECAs
Rob Drysdale, Global Fuel Engineering & Logistics Advisor, Avalon & Marine Global Business Unit (GBU), ExxonMobil
A guide to the range of fuels currently available for ECA compliance together with, most importantly, an overview of what ship owners/operators are using.

10.15 The economists view: the current and predicted pricing structure of marine fuels
Ed Gassop, VP LNG Markets ENA and Asia, World Fuel Services Europe
The recent drop in the price oil has closed the gap between LNG and other fuels used by ship owners/managers/operators for ECA compliance. This paper will give a cost comparison between the fuels currently available and will also give comparative predictions should oil prices return to their previous levels.

10.30 QUESTIONS & ANSWERS
10.40 COFFEE & NETWORKING

Session 2 – LNG vessels - what vessels are now in operation, what are being built and what are on the drawing board

11.10 LNG vessels in service and on the drawing board - Europe
Martin Christian Wolff, Senior Consultant, Environmental technology and compliance, DNV GL – Maritime Advisory
As the leading class society for LNG vessels across Europe, this paper will give an overview of the vessels currently in service and due for delivery in the near future. It will also cover the predicted take up for the European market for the different vessel types and usage.

11.25 LNG vessels in service and on the drawing board – USA
Sean Bond, Director of Global Gas Solutions, ABS
With the USA take up of LNG as a maritime fuel currently lagging behind but predicted to overtake Europe, an overview of the vessels currently in service, due for delivery and orders placed, together with the predicted take up for the US market including different vessel types/usage, will be given.

11.40 QUESTIONS & ANSWERS

Session 3 – Design & technology update: design implications, engine and propulsion systems, tank and process designs

11.50 Smart financing of sustainable ship investments
Romain Ploesch, Managing Director, Wilhelm Borchert
Transport service and infrastructure suppliers require sufficient financial strength to realise investments and developments needed. A sustainable financing mix of grants and loans as well as even cash is mandatory to stay viable and competitive over the long-run. Such an approach will be demonstrated using an engineered real-life example covering possible ways of optimizing the financing of new buildings and/or retrofittings of ships.

12.05 Innovative financial model to help ship owners comply with emissions regulations
Pace Rail, Co-Founder, Clean Marine Energy
Emissions Compliance Service Agreement (‘ECSA’) is a proven model for energy efficiency financing in real estate, adapted to the shipping sector. The ECSA absorbs the upfront capital expenses needed for a vessel to be emissions compliant in exchange for a portion of the savings that result. Effectively, fuel payers pay for ‘low-cost’ LNG or HFO (in the case of scrubbers) plus a premium for a fixed period of time until the investment is recovered. Providing Ship owners with capital allows investment in other more customary and accretive projects.

12.20 QUESTIONS & ANSWERS
12.30 LUNCH & NETWORKING

Session 4 – Design & technology update: design implications, engine and propulsion systems, tank and process designs

13.50 The cost and design implications of new builds and retrofits for LNG fuelled and LNG ready vessels
Helmholtz Rehfeldt, Director Engineering, Naval Architect, Technology Services
There are a number of design implications that need to be taken into consideration when building (or converting) a ship to run on LNG, this paper will give an overview of these and the cost implications compared to other options for ECA compliance.

14.05 Gas Turbines – a power dense, emissions compliant solution for LNG fuelled ships
Jeremy W. James, Commercial Marketing Director, GE Marine
Gas turbine-based power and propulsion systems can bring additional revenue to merchant vessel owners and operators. Because of the significant weight and space savings, due to the systems power density, ships can carry more cargo and/or passengers than similar diesel-powered ships; especially important as operators look to LNG as a fuel, increasing the size of the fuel tank. The paper will show examples of LNG carriers, container ships and fast ferries to demonstrate how the power density of our system can improve a ship’s economics.

14.20 First service experience of the Dual Fuel ME-GI engine
René Sejer Laursen, Senior Scientist, Naval Architect, Structural Dynamics, TNO
More than 100 units of the ME-GI engines have now been ordered. The diesel combustion cycle offers a very robust combustion, with little methane slip and with little combustion pressure variations between the cylinders, meaning that the engine is able to handle fast load changes during operation in gas mode, and that the engine can stay in gas mode during heavy weather and ice conditions.

14.30 LNG fuel systems for ships - experiences, challenges and solutions
Ann Rigmor Nerheim, Dr.Ing., Senior Project Engineer - LNG Fuel Systems, Commercial Marine, Rolls-Royce Marine
Experiences with LNG storage in C-tanks and processing for safe and stable gas supply to the engine and will include tank design and process design will be shared in this paper. Various systems and process designs will be discussed, and alternative robust solutions will be presented.

14.40 QUESTIONS & ANSWERS
14.50 COFFEE & NETWORKING

Session 5 – Roundtable Discussions – LNG as a maritime fuel

Demand for LNG as a fuel for ships:
– Economics of LNG versus alternative – Moderator: Dr Martin Kröger, Managing Director, VDR – German Shipowners’ Association
  ● Additional hardware cost of LNG fueling
  ● Economic premium for using LNG
  ● Government subsidy
– Non-economic drivers – Moderator: Maite Siegert, Head of Environmental Policy, NABU
  ● ECAs
  ● Greenhouse Gases

LNG Fuelled Ships (one group)
– Moderator: Gavin Lipsith, Editor, The Motorship
  – Onboard Technology
    ● Propulsion
    ● Onboard Storage
    ● Safety and regulation
  – Bunkering
    – Transfer system
    – Safety and regulation

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DAY TWO – WEDNESDAY, 11 NOVEMBER 2015

09.00 COFFEE & REGISTRATION

09.30 Summary of day one and opening remarks by the day two Chairman
Lars Robert Pedersen, Deputy Secretary General, BIMCO

Session 6 – Infrastructure and operational update in ECAs
09.45 LNG for Transport: Implementing an effective value chain
Alexander Marczewski, LNG Business Development Manager Europe, Downstream LNG, Shell
Collaboration across the value chain is critical for success and sustainability of LNG as a fuel option. This paper will give an update on the current status of availability of LNG across Europe and will illustrate some of the steps that have been taken to underpin this, such as the Gate terminal in Rotterdam and the construction of an innovative new bunker vessel that will operate in the ARA region.

10.05 Building the low-emission fuelling infrastructure in North America
Pace Reif, Board of Directors, WeaPac Midstream
An update on the progress of the LNG supply infrastructure in North America

10.25 Case study of the first LNG bunker vessel dual fuel build for operation in SECA
Martial Claudepierre, LNG Business Development Manager, Bureau Veritas and Laurent Rambaud, Vice President Business Development Retail LNG, ENGIE LNG
How a new design LNG bunker vessel operated by ENGIE and classed by BV for refuelling LNG fuelled ships, operating in SECA, will endeavour the adoption of LNG as a cost effective and cleaner fuel.

10.45 SIMOPS (Simultaneous cargo operation) during LNG bunkering of LNG fuelled vessels
Henning Preet, PTP-Lead Gas Technology, Machinery Systems & Marine Products, DNV GL – Maritime
One of the greatest challenges to make LNG a viable bunker fuel on seagoing ships is the timeframe needed for bunkering of large amounts of LNG. This presentation will look at the regulations being developed for SIMOPS and will give an overview of the different developments in the ISD, class requirements and research projects which have dealt with this challenge and provide some practical experience.

11.05 QUESTIONS & ANSWERS

11.15 COFFEE & NETWORKING

Session 7 – Alternative, future and multi fuel solutions
11.45 Feasibility of alternative fuels for marine use
Hendrik Brinks, Principal Researcher, DNV GL, and Christian March, Development Engineer, MAN Diesel & Turbo
LPG, methanol and various types of biofuels are all being considered and tested as alternatives to LNG for ECA compliance. The adoption of any new fuel will be driven by fuel price developments, technology, regulation, availability and infrastructure development. A cost-benefit comparison between the above mentioned alternative fuels and conventional marine fuels will be presented using a product tanker as the test vessel on a route including operations in ECAs. Comparison of the equipment and installation cost for each fuel will be given together with a number of fuel price scenarios. Finally, a discussion on the environmental implications of using each one of the alternative fuels will be presented.

12.05 Stena Germanica – the world’s first methanol fuelled ferry
Per Steffenlov, Technical Division, Stena Rederi and Tori Stajcicovski, Project Manager, Methanol adaptation, Wartsila Sweden
The Stena Line ferry Stena Germanica re-entered service in March 2015 as the first commercial ship in the world to run on methanol as its main fuel. Operating between Kiel, Germany and Gothenburg, Sweden, this presentation will give feedback on the first months of operation.

12.25 Ethane as fuel – a new sustainable solution enabled by Wartsila Dual Fuel engines
Carlo Contessi, General Manager, Applications Developments, Ship Power Engines, Wartsila Italia and speaker tbc, Equasgas
The Wärtsilä UDF marine engine was successfully tested and certified to run on Ethane (LEG), now installed on multi-gas carriers for Equasgas, enabling the use of bi-at LPG and LEG as fuel, compliant with IMO Tier 3, capable of changing seamlessly between: LNG, LEG, LFO or HFO.

12.45 QUESTIONS & ANSWERS

12.55 LUNCH & NETWORKING

Session 8 – Operator case studies and feedback on LNG fuelled vessels
13.15 Nordic Hamburg Container Vessel – LNG fuelled Container Ship
Rowal Ports, Managing Partner, Nordic Hamburg Shipmanagement
The 1.400 TEU LNG / Dual Fuel Container Vessel will not only be the first LNG-powered container ships in the Emission Control Area, it will also be the first container new buildsvessel that fully complies with the established ECA regulations. This presentation will detail the economic benefits and technical innovations of the vessel, from being able to burn LNG to the highly flexible Container stowage concept and other outstanding technical features.

13.35 First season experience of operating the LNG Hybrid Barge "Hummel" in Hamburg
Max Konnorswolke, Director LNG Hybrid, Becker Marine Systems
Becker Marine Systems initiated the classified seagoing LNG Hybrid Barge as an innovative pioneering project to provide a quick and flexible power supply to cruise ships during their lay time in port - one which is more eco-friendly, more flexible and more economic than all other current options.

13.55 World’s first LNG-powered cruise ships (paper title tbc)
Tom Strong, Senior Vice President, Marine Operations, Costa Crociere
The MS Odtettisland passenger ferry was retrofitted to run on LNG by Brevundorm Verftsteknik Bremen (BV), it will be the first LNG vessel under the German flag and will run a daily service between Emden and the North Sea Island of Borkum. By using LNG the MS Odtettisland will save more than one million tonnes of marine gas oil per year.

14.15 QUESTIONS & ANSWERS

14.25 COFFEE & NETWORKING

Session 9 – Operator panel discussion: ECA implementation, ECA compliance and looking ahead to 2020
14.35 Moderaed by Lars Robert Pedersen, the discussion will commence with a short presentation:
ECAs implementation, ECA compliance and looking ahead to 2020
Captain Wolfmant Guntermann, Director Environmental Fleet Management, Ship Management, Napay-Lloyd AG

Panelists: Paolo Tonon, Vice President, Head of Maersk Maritime Technology Rowal Ports, Managing Partner, Nordic Hamburg Shipmanagement, Per Steffenlov, Technical Division, Stena Rederi, Tom Strong, Senior Vice President, Marine Operations, Costa Crociere

17.00 Concluding remarks from the Day Two Chairman and close of conference

DAY THREE – THURSDAY, 12 NOVEMBER 2015

08.00 Meet in lobby for technical visits to Stena Germanica methanol-fuelled ferry (Kiel) and Becker Marine/AIDA Cruises’ LNG Hybrid Barge (Hamburg)

*The conference programme is subject to final confirmation
**BOOKING FORM**

**Date & Venue**
The conference will be held on Tuesday & Wednesday 10-11 November 2015 at the Grand Elysee Hotel, Hamburg, Germany. The conference dinner will be held on 10 November 2015. The third day, 12 November 2015, will include technical visits to the Stena Germanica (Kiel) and the Becker Marine LNG Hybrid Barge (limited places available).

**Accommodation Information**
Grand Elysee Hotel, Rothenbaumchaussee 10, 20148 Hamburg, Germany. Tel +49 40 414120. Special rates for delegates at the Grand Elysee start from just €190 per night; please visit www.motorship.com/gfsconference for more information on how to book your room.

**Conference Fee**
- Cost per delegate (standard rate) €1595* / £1385*
- Group booking discounts are available and recognised educational establishments will be offered special rates; please contact us for details.
- Members of BIMCO, VDR and ship operators qualify for special rates, contact the organisers for details

**Fee includes:**
- Conference attendance on both days
- Full documentation in print and electronic format
- Lunch and refreshments on both days
- Place at the Conference Dinner
- Technical visits to Stena Germanica and Becker Marine LNG Hybrid Barge (places are limited)

**Booking**
Book online at www.motorship.com/gfsconference or complete and fax back the booking form below to +44 1329 550192. On receipt of your registration you will be sent confirmation of your delegate place.

**Contact Us**
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- [ ] Please register me for the 6th Gas Fuelled Ships 2015 Conference. I will attend the following (NO EXTRA COSTS APPLY):
  - [ ] Conference Dinner, 10 November 2015
  - [ ] Technical visit to Stena Germanica methanol-fuelled ferry
  - [ ] Technical visit to Becker Marine/AIDA Cruises’ LNG Hybrid Barge

- [ ] I qualify for the ship operator’s preferential rates, please contact me with details

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