



London Branch Conference

**Maritime Excellence Programme**

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# Autonomous Ships – What does the future hold?

The Novotel Hotel, Bristol  
25th - 26th September 2015

The  
**Nautical**  
Institute  
London Branch

# Autonomous ships – What does the future hold?

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Conference Chairman:  
Captain Nick Nash FNI

25th-26th September  
The Novotel Hotel, Bristol

## The Seminar

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Two years ago, the London Branch Conference looked at 21st Century Shipping and how the industry will evolve. Autonomous and/or unmanned vessels is one of the evolutions that is proceeding at a fast pace. Autonomous and unmanned vessels are already in use in the defence industry for mine clearance and targets; in the oil and gas industry for subsea positioning, surveying and environmental monitoring; and in oceanographic data collection. Whilst the number of vessels are small, the technology is advanced and can be easily scaled up to SOLAS size.

This seminar will look at the issues involved with increasing autonomy in shipping with an introduction to the concept; an overview of current developments; the technology present and future; safety and assurance of vessels; what changes mean for shipowners; legal and insurance implications; and the human element – monitoring and navigating autonomous ships.

The generous support of our sponsors has enabled us to keep the cost of the seminar at reasonable levels in order to encourage the attendance of sea-going officers and to offer students the opportunity to attend at advantageous rates.

## Who should attend?

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The seminar will benefit all those with an interest in the future of the shipping industry including: shipmasters, mariners, ship owners and operators, charterers, harbour authorities, surveyors, trainers, naval architects, claims handlers, maritime lawyers, P&I insurers and marine consultants.



# DAY 1

## FRIDAY 25TH SEPTEMBER 2015

<b>12:30</b>	<b>Lunch and Registration</b>
<b>14:00</b>	<b>Opening Address</b> by Nautical Institute – London Branch <b>Welcome Address</b> by The Lord Mayor of Bristol: Cllr Clare Campion-Smith
<b>14:10</b>	<b>Autonomous Ships</b> An introduction to the concept of Autonomous Ships. What are they? Why do we need them? How long will it take to get there? How will they find their place in the maritime world? <i>James Fanshawe CBE, Chairman, Maritime Autonomous Systems Regulatory Working Group</i>
<b>14:30</b>	<b>Developing Autonomous Navigation: The MUNIN unmanned vessel test-bed</b> An overview of current developments. What prototypes are developed and what still needs to be done? How will technology be tested? How will safety and efficiency gains be assessed? <i>Hans-Christoph Burmeister, Project Co-ordinator, MUNIN</i>
<b>15:00</b>	<b>Towards Autonomy &amp; Remote Operations in Ships</b> What is the motivation for unmanned operation in commercial shipping? How will we get there? What technologies are required and what obstacles must be overcome? <i>Eshan Rajabally, Technologist, Rolls Royce</i>
<b>15:30</b>	<b>Safety Assurance of Autonomous Vessels - a Class Perspective</b> How does the safe operation of autonomous vessels differ from that for manned vessels? How will Lloyd's Register develop its assurance processes to meet the requirements of operators and regulators? <i>Ben Cuckson, Lead Specialist, Naval Liaison Office, Lloyds Register</i>
<b>16:00</b>	<b>Coffee break</b>
<b>16:20</b>	<b>Ship-owning and ship-management</b> What will the changes mean for Shipowners & Managers? Risks and pressures? How will they plan for and operate "mixed" fleets of autonomous and non-autonomous vessels? <i>Matthew Williams, Senior Marine Advisor, International Chamber of Shipping</i>
<b>16:50</b>	<b>Insurance</b> How will H&M and P&I insurance need to adapt and change? Some risks may increase whilst others will be reduced. What are these risks? How will they affect premiums? Will the insurers need to increase their risk assessment and monitoring procedures? <i>Stuart Edmonston, Loss Prevention Director, Thomas Miller (UK P&amp;I Club)</i>
<b>17:20</b>	<b>Discussion Session</b>
<b>20:00</b>	<b>Gala Dinner at the Novotel, Bristol</b> Guest Speaker - Revd Philip Auden MNM DL MNI, Missions to Seafarers Bristol

## DAY 2

### SATURDAY 26TH SEPTEMBER 2015

<b>09:30</b>	<b>Navigation: Machines v Humans – Who will win?</b> The art of navigation, route planning, route monitoring & active decisions. The insufficiency of the COLREGS in many situations. Manned and autonomous ships in the same area – what will happen? <i>Dr. Andy Norris FRIN FNI</i>
<b>10:00</b>	<b>The Human Element</b> How will training requirements change & develop. No or smaller crews. The effect of the “monitoring” role aboard and ashore. Passive/active operators. Psychological effects for those on board and ashore <i>Chris Pollard, Plymouth University</i>
<b>10:30</b>	<b>Coffee break</b>
<b>10:50</b>	<b>Legal Considerations</b> Who is in command? How will flag/coastal/port states react? Liabilities and responsibilities under international law for Masters and Owners. SOLAS/STCW/COLREGS, etc. <i>Dr Alexandros Ntovas, Institute of Maritime Law (Southampton)</i>
<b>11:20</b>	<b>Questions and Discussion</b> An open panel discussion to allow delegates to put forward their own views and questions to all conference speakers.
<b>12:10</b>	<b>Summing up and review of the implications for Mariners, Shipowners &amp; Managers</b> <i>Chairman: Captain Nick Nash FNI, Vice-President Nautical Institute</i>
<b>12:30</b>	<b>Close of Conference</b>

For information on London Branch events visit our website:

<http://www.nautinstlondon.co.uk>

and our Facebook page :

<https://www.facebook.com/nauticalinstitutelondon>

The Nautical Institute is a non-governmental organisation (NGO) with consultative status at the International Maritime Organisation (IMO). Our aim is to represent seafarers' and practical maritime professionals' views at the highest level.

# General Information

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## Accommodation

Delegate accommodation is available at the Novotel for delegates and their guests. Accommodation is limited so early booking is essential and by 14th August. To receive the delegate discount rate please mention the seminar when making your reservation. Credit card details are required to guarantee your reservation.

**The Novotel Hotel Bristol** (seminar venue)  
Victoria Street, Bristol BS1 6HY  
Tel: +44 (0)117 3199002 Fax: +44 (0)117 9255040

Delegate discount rate : £109 single occupancy per night, £119 double occupancy per night including breakfast and VAT.

## Details



**Language** - the language of the seminar is English

**Continuing Professional Development** - Accreditation by the Law Society of England and Wales (CTD/NAIN). CPD certificates will be issued

## Registration fees

NI Sea-going member: £90

NI Shore-based member: £190

Nautical Institute (AMNI) Students: £50 (Limited number available)

Non members: £240

Guests (Dinner only): £40

*Fees include attendance at the seminar, all seminar papers, lunch and gala dinner on 25th September. All inclusive of VAT*



Register online at

<https://autonomousships.eventbrite.co.uk>

# Sponsors

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## Main sponsor

### The UK P&I Club

The UK P&I Club is one of the oldest P&I clubs in the world. It provides Protection and Indemnity insurance in respect of third party liabilities and expenses arising from owning ships or operating ships as principals. One of the largest mutual marine protection and indemnity organisations it insures over 200 million tonnes of owned and chartered ships from more than fifty countries across the globe.

The UK P&I Club gives you security with its A (Stable) Standard & Poor's rating and accessibility with a claims service on hand in 350 ports. Its on-the-spot help and local knowledge is unmatched. As is its ongoing response to the changing environment and your changing needs. Its continuing experience, size, coverage and service mean unparalleled specialist skills and expertise developed to a level of sophistication seldom seen in our field. All this is available to you as a Member and to the masters and managers of your ships.

[www.ukpandi.com](http://www.ukpandi.com)



## UK P&I CLUB

## Secondary sponsors



### Solis Marine

Solis Marine Consultants established in London, Singapore and Hong Kong provide independent expert advice on maritime and shipping incidents.

[www.solis-marine.com](http://www.solis-marine.com)



### TMC Marine

TMC is a leading international marine consultancy offering a comprehensive range of marine surveying and consultancy services through a team of consultant surveyors (naval architects, marine engineers and master mariners) assisted by our in-house technical support team.

[www.tmcmarine.com](http://www.tmcmarine.com)

Other sponsorship opportunities are available.

Please contact [rod.lingard@thomasmiller.com](mailto:rod.lingard@thomasmiller.com) or [hg@nautinst.org](mailto:hg@nautinst.org)