

Annual Conference Report 2018

This year's Annual General Meeting and Conference took place on Wednesday 18 April, in the Garden Room at the Bank House Hotel & Golf Club in Bransford, Worcester. Over 50 delegates were present for the day representing member companies, Associates and guests. The Annual Dinner was held afterwards.



The conference was kindly sponsored by EMD Engines, a Caterpillar Company.

Annual General Meeting

At the AGM, Nick Dorman, Technical Director for Targe Towing Ltd was elected as Chairman, whilst Scott Baker of Svitzer Marine Ltd was elected to the post of Vice-Chairman. In addition, Nick Jeffery was instated as Technical Representative and Chair of the Technical Committee.

The following were voted in for the first time or returned as members of the Executive Committee: Nick Jeffery (Solent Towage Ltd), Duncan Foster (Serco Marine Ltd), Rene Raaijmakers (Kotug Smit Harbour Towage Ltd), Gareth Escreet (SMS Towage Ltd), Andrew Murray (Caledonian Towage Ltd), Gareth Bonner (SMS Towage Ltd) and Phil Dulson (Kotug Smit Harbour Towage Ltd)

The meeting approved the new membership arrangements of the UK Chamber of Shipping and the new tonnage based call structure for full members. Associate members, a growing cohort of the membership, continue on the same membership structure.

Lastly, the position of Honorary President was reinstated and the election of Tom Woolley of Targe Towing Ltd. to the position was approved.

The Chairman's report to the AGM is included at Annex A.

The Conference

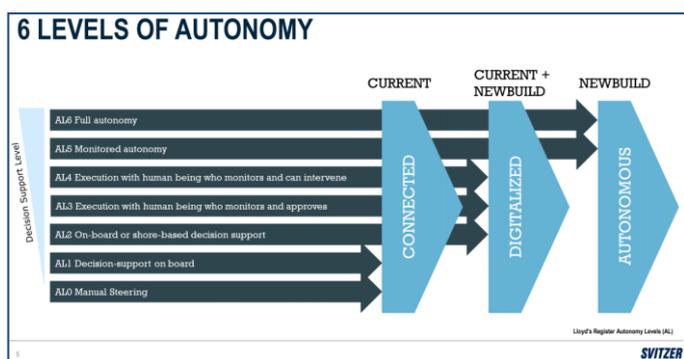
The Chairman opened by welcoming members, guests and speakers to a sun filled Worcester for what was going to be a focussed conference on the topic of autonomy, remote operations and a view of the towage sector's potential future. It was recognised that technology and future gazing were filling a considerable amount newspaper inches and that the towage industry was at the forefront of developments in a number of areas, from the world's first remotely operated commercial vessels to concept designs for autonomous fire-fighting ships. The Chairman hoped the day would provide an in-depth introduction and offer a golden opportunity for the leaders of the UK towage industry to steer the course of progress, in particular as to how autonomy could impact upon safety of crews and vessels.



Kevin Daffey, Director of Engineering & Technology Marine for Rolls-Royce began proceedings as the opening speaker of a three part presentation involving Rolls-Royce, Svitzer and Lloyds Register discuss their remote tug operation initiative in Copenhagen.

The 28m long Svitzer Hermod, safely conducted a number of remotely controlled manoeuvres. From the quay the vessel's captain, stationed ashore at Svitzer HQ, berthed the vessel alongside the quay, undocked, turned 360°, piloted it to HQ, before docking again. The vessel, fitted with a DP system, has a range of sensors which combine different data inputs using advanced software to give the captain an enhanced understanding of the vessel and its surroundings. The data is transmitted reliably and securely to a Remote Operating Centre (ROC) from where the master controls the vessel. Practically the master found that the pillar-less view offered shores-side provided for superior awareness and that the cameras were better at night and in low-light than the human eye. During the whole operation there was a full crew on board and that the master had absolute authority throughout to ensure safe operations in the event of a system failure. To ensure security and safety the project installed several cyber systems and introduced a variety of fail-safe procedures and levels of redundancy, furthermore to test these systems Rolls Royce brought in a team of ethical hackers – who failed to gain access after for a period of two weeks.

Leonardo Sonzio, Chief Operating Officer for Svitzer outlined the rationale for Svitzer's involvement in the project, what they hoped to achieve and how the lessons learnt would not merely be applied across Svitzer, but across the whole Maersk Group and industry. For Svitzer, delegates were told, the company culture was to embrace change and disruption and explore where gains and efficiencies can be made.



Autonomy is not a means of removing crew from ships; rather the clearly stated objective for Svitzer is to enhance three key areas of operations. To improve safety through increased avoidance of collisions and grounds. To increase reliability of assets through continuous condition analysis and predicative based maintenance. To enhance efficiency through reduced fuel consumption and emissions. Leonardo outlined that in new technologies on board vessels and ashore, would provide new opportunities and requirements for skills and jobs.

Cyber Enabled Ships – descriptive notes

four descriptive notes in the areas of cyber enablement:

Cyber-SAFE

Ship can be operated safely at defined Autonomy/Remote Access Level

Cyber-MAINTAIN (Conditioned Based Maintenance)

Cyber enabled CBM. Supported by an update to MCM/MCBM ShipRight

Cyber-SECURE

Cyber-security assured at a level beyond that required for safe operation at a defined Autonomy/Remote Access Level

Cyber-PERFORM

Ship can safely achieve performance targets through cyber-enablement to a defined Autonomy/Remote Access Level.

Lloyd's Register

Jonathan Earthy, Human Factors Coordinator for Group Technology at Lloyd's Register provided the Classification Society view, in ensuring that any initiative and testing conducted in accordance with Class Rules and maintains safety and security.

For the Svitzer Hermod initiative there was a lack of prescriptive Class Rules however this was no barrier as the project provided assurance against LR's Cyber-Enabled Ships ShipRight Procedure. Jonathan

explained the concept of cyber enabled ships and the differing areas of cyber enablement that LR looks for when assessing vessels. It is apparent however that there will be no sudden step-change into cyber enablement or autonomous ships; rather it will be a prolonged transition of stops and starts resulting in the co-existence on the regulatory and operational side between autonomous and traditional systems with numerous challenges.

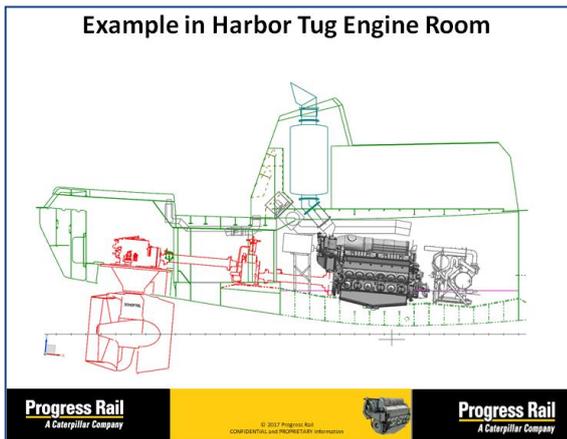
The companies have also signed an agreement to continue their cooperation to test remote and autonomous operations for vessels. The primary systems involved will be autonomous navigation, situational awareness, remote control centre and communication. The speakers then engaged in an open panel discussion with delegates considering the quandary of the UNCLOS & SOLAS responsibility to rescue those in distress at sea, cyber concerns, two tier shipping markets, economic viability and the future for tug crews. What was universally clear amongst all there was that presently there are far more questions than answers and technology is moving at a rapid pace.

Vince den Hertog, VP of Engineering at Robert Allan Architects took attendees on a timeline through technological development, from the early automation of fly-by-wire systems for aircraft to unmanned self-driving trucks in Australian iron mines.

Robert Allan taken the concept of Autonomous Unmanned Vessels (AUVs), i.e. those built for a specific purpose, and considered options related to the towage industry. It is well

recognised that pressure differences can drag a bow tug into the bow of the vessel causing damage and risk to safety of life. To combat this, Robert Allan have designed the RAmora 2400, a purpose built unmanned tug for extended operation in potentially hazardous environments like LNG terminals, firefighting situations, and close-in berthing or ship-assist operations, bow and dangerous work with a diesel/electric engine propelling forward and aft Voith thrusters. The RAmora could be used in combination with a conventional manned tug and sit on the bow of a cargo ship and be controlled either by the manned tug or by shoreside operations. Robert Allan Architects are collaborating with the Pacific Maritime Institute (PMI) in testing simulations of the tug and operations to enhance experience.





Brian Grinter, Director and Andy Alexander, Product Support Manager for EMD Engines provided an upbeat and detailed overview of the range of products offered by EMD Engines. Dating back to the 1930's the company has its roots in designing diesel electric engines for US submarines but has since delivered 78,000 engines worldwide. The company prides itself on being the most responsive engine for a medium speed engine, capable of transitioning from idle to full load in a mere 11 seconds for fixed pitch propellers. The engines are widely used by towage operators in the US, and EMD are now branching out to the UK and European markets with diesel, dual fuel and direct gas injection variants.

Delegates welcomed the presentation with some reminiscing about using earlier models of the engines in the Caribbean in the 1980's.

Jonathan Goulding, Associate and Mariner at HFW gave a legalistic view of the implications of autonomy across the maritime sector. Highlighting that autonomous does not necessarily mean unmanned, Jonathan outlined the existing regulations of The Merchant Shipping Act, SOLAS and UNCLOS are designed around conventional ships which are manned and operated accordingly. The challenge exists however whether regulation based on these bases are applicable or fit for purpose in the developing maritime environment with increasing prominence for autonomous systems and technological pace. Whilst the IMO are conducting a scoping exercise to examine which maritime regulations preclude autonomy, have no relation to autonomy or will need specific amendments such a piece of work and a newly developed international regulatory framework incorporating autonomy unlikely not be in existence until 2028, by which time technological advancement may have overtaken and rendered the framework redundant.



Tom Eysto, VP Bridge Systems at Kongsberg Maritime rounded the day off providing the technologists view on how Kongsberg are adopting autonomy across their operations, from fire-fighting tugs, to tugs using swarm technology, to autonomous unmanned cargo vessels powered by huge battery packs.

For Kongsberg, autonomy could bring enhanced focus on safety at sea, could provide stability of operations with remote control and could remove humans from those areas considered, Dull, Dirty and Dangerous. The unmanned RALamander fireboat would enable more aggressive on-water firefighting being able to get much closer to the fire whilst reducing risk and improving personnel safety.

The Chairman closed the conference by thanking delegates for a strong turn out and their attention, the speakers for providing thought provoking, insightful and questioning presentations, and EMD Engines for their generous sponsorship of the event. He also drew attend to the golf the following morning and thanked Kotug Smit for their kind support for the competition for the Sir William Crosthwaite Cup 2018.

The Dinner

The annual dinner began with drinks on the terrace before returning to the Garden Room. The Chairman and Guy Platter, CEO of the UK Chamber of Shipping completed a ceremonial signing of a Memorandum of Understanding between the BTA and UK Chamber to mark the new membership arrangements.

The dinner, attended by some 45 attendees, provided an sociable opportunity to network and catch up with colleagues and competitors. The Chairman presided and proceedings included a presentation to the previous BTA Secretary, Adrian Muddin, as thanks him for his hard work and expertise to the role; along with the award of the BTA's '**Tug Personality of the Year**' to Tom Woolley, of Targe Towing Ltd. for his huge contribution to the BTA Executive for 25 years and his dedication and promotion of safety across the industry.

The Annual Golf Competition

The annual golf competition for the Sir William Crosthwaite Cup took place on a Thursday morning at the hotel's golf complex. A strong turnout of 13 players competed on a damp course under the sun, with the competition kindly being organised by David Offin formerly of Caledonian Towage and kindly sponsored by Kotug Smit. The overall winner was Lisa Smiley of DNV GL, and the winner of the cup was Rene Raaijmakers, of Kotug Smit. The cup now presides in Rotterdam until 2019.



Sponsor of the Sir William Crosthwaite Cup 2018

Robert Merrylees

Secretary
British Tugowners Association



ENGINES

*Conference kindly supported by EMD
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high quality and specialist engines*

Chairman's report to the AGM 2018

The aim of the British Tugowners Association (BTA) is to represent the interests of its Members and the wider towage industry; it is a role we have fulfilled for 84 years, and we must ensure that the BTA remains as relevant today as it was when first constituted in 1934.

Ours is an organisation that has adapted to technological advances and today we are focussing on autonomy and what the future might look like. The BTA has traditionally been at the forefront of change, and the breadth of talent we have in those who operate tugs across the UK, places us in a position where innovation can be embraced and delivered.

We have seafarers operating highly technical vessels in very demanding conditions, and our people have a consistent and proven track record of developing and implementing new technologies; indeed there are some in this room today who embody that adaptability in having the skills to drive conventional single screw tugs through to the most complicated tractors and ASDs.

The BTA membership continues to be the force that shapes innovation in the towage sector, particularly in developing the training standards to meet the demands and changes that technology brings whilst providing safe and effective towage services to our clients.

I would like to take the opportunity in this report to look forward and update the membership on the Executives strategic aim and how we will meet and deliver the BTA's objectives.

At this AGM we will vote on joining the UK Chamber of Shipping as a full member whilst also changing our Constitution to reflect a change in our fee call.

The reasons for joining the Chamber are compelling and beneficial to both organisations: the BTA will have a tonnage based fee structure that will reduce annual charges in all but a few cases, it will ensure the longevity of the BTA by passing the risk of a larger member withdrawing to the Chamber, the BTA will remain autonomous whilst its tug operating members enjoy the benefits, access and influence of the Chamber as full members of that association too.

The Chamber gets a significant boost to its membership numbers and an opportunity to raise income and influence through expanding the membership of the BTA, both tug operators and from the BTA's Associate membership scheme; we often hear of win-win situations, and I truly believe that this is one.

I strongly commend to the members of the BTA the resolution to become full members of the United Kingdom Chamber of Shipping

As we look forward there is much work for the BTA, and I see our principal focus being around training, safety, shaping regulation by cooperating with Government, the MCA and our social partners, liaising with the ETA and IACS, working with port operators and most importantly working with our membership to shape the conditions for them to deliver towage in a safe, effective and efficient manner.

At the tactical level, effort will be focussed on areas such as working with the MCA on SV engineering and deck certification, Ship Assist Endorsements, developing apprenticeships, shaping the proposed 500 GT code, the carriage of MOB boats, MLC regulations and construction, CAST, influencing Chapter 10 of the PMSC GTGP and continually improving safety. With the ETA and IACS we will work together on winches, particularly survey and emergency release criteria, and develop standards for fairleads and bits. And more broadly on areas such as engagement across the maritime industry with devolved parliaments, Shipowners, the Chamber,

MAIB, SOSREP, UKMPA and NWA to ensure they understand the challenges we face whilst recognising the benefits we bring to the port and terminals in which we operate and our intrinsic part in the UK's maritime trade sector.

Delivery of this will need a focussed group of experienced and forward thinking towage people and I am pleased to announce that the Technical Committee will be reinstated with the membership drawn mainly from the Harbour Towage Panel and under the Chairmanship of Captain Nick Jeffrey. The Technical Committee has traditionally been the engine room of BTA's output and please do support Nick, and those on the Technical Committee, as they work to deliver our objectives.

Turning to safety we had another successful Safety Seminar held last November at the Northern Lighthouse Board's offices in Edinburgh. The message was clear, safety must underpin all that we do, it contributes to operational effectiveness and it is the cornerstone of commercial success.

Since we started our safety seminars over 15 years ago on the back of the challenge issued to the towage industry by the Chief Inspector of the MAIB, tug safety has improved. Rarely do we see silly accidents caused by ill thought action, inexperience or poor training, however that should not detract from our continually improvement nor lead to complacency, contributory factors which the MAIB consistently highlight as a principal cause of accidents.

However, there is more work to be done and we will continue our focus on strategic issues and their consequences such as the implementation of the EU Port Directive across Europe – which may lead to a race to the bottom – the increasing use of Workboat certification holders to drive large tugs engaged in ship assist towage, to ensure towage is understood by our regulators – which became highly relevant during the implementation of the MLC – and the need to engage with all stakeholders in port operations to strike the right balance between safety and the commercial imperative.

I looked back at one of our earliest Safety Seminar meetings and found the following paragraph in the opening remarks:

“Safe towing practices are not just owned by our tug crews, they should permeate and be understood at every level; from towage company Boards and management, to port and harbour operators, by pilots, by regulators, by those ships we do so ably assist. It encompasses tug design, methods of towage, safety systems and equipment, experience and communication between all stakeholders....”

And that I suggest ladies and gentlemen remains as true today as it was then.

In conclusion, the BTA is as relevant as it ever was, perhaps more so as we look to the future and what we have to deliver. Your continued leadership is vital and I look forward to working with you as we meet the aim to represent our interests and those of the wider towage industry

Nick Dorman
BTA Chairman
April 2018