SHIPPING Network

The official magazine of the Institute of Chartered Shipbrokers

Promoting professionalism in the shipping industry worldwide

Issue 57 June 2019

Putting scale into perspective

Why big isn't always better

Impacts of consolidation | Ship upsizing | Port challenges | Trade evolution

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Consolidation scales new heights

Iain Mcintosh draws on personal experience to examine liner shipping merger trends

Iain Mcintosh

Having worked in container shipping for over 40 years and watched this relatively young industry evolve, I can safely say that upscaling and consolidation in this sector is actually nothing new – but in recent years the growth of both has been nothing short of breath-taking. This edition of *Shipping Network* has some great articles from contributors covering all aspects of scale but in this introduction I'd like to touch on what is it like to personally experience such a change and answer the question: is scale essential to survival?

In my career I have been 'merged' several times, sold and, most recently, upsized into a brand-new container line. All the moves brought different feelings, notably of uncertainty and insecurity, but they also brought new opportunities, new challenges, new ideas and new colleagues.

My most recent merger was formed from three smaller container lines. While it could be called a merger in some respects it was in fact the formation of a completely new carrier with a fresh identity even though the shareholders remain the parent companies. My lasting memory over the past year has been the forging of our new brand and identity in the market and working with the various strengths of people from the original separate brands. This, of course, takes time, but after one year of operation the mentality of which line you came from fades away and employees are then able to really embrace the new entity.

Container shipping consolidation has reached unparalleled heights

So, was this upscaling essential? In every respect the answer is absolutely. The pre-merger carriers simply did not have the fleet size, scale and trade networks to compete with the upscaling that has already taken place with other carriers. Personally, the move from a smaller carrier to the new consolidated company created a feeling of enormous security as the scale and size changed the way I felt about the future. In my twilight years a whole new style of operating and change has recharged and reinvigorated me.

Doubling capacity on one trade led to a more robust approach to customers and a re-think on competition challenges. By the same token, drawing on the experience of three separate sales departments, all with different client base strengths, presented new business for trades which the legacy companies could not previously participate in. But the hardest task initially was ensuring 100% retention of each legacy company's business. This of course is always a challenge in any merged business; ironically, though, in time the 'retention' part falls away as you re-invent and grow in other market areas and find new customers.

Buying power

Scale also gives great procurement opportunities on so many levels: buying for an organisation three times the size of the original companies brings obvious increased buying power. Another, less obvious benefit of scale is on the cultural side. In this merger, three different approaches to managing costs and conducting smart operations came together, combining better yield management with smart network planning to ensure the best optimisation – what I believe to be the most important aspect of liner shipping.

But for me the best part of this merger has been getting to know new people with fresh ideas and working through the challenges as they inevitably arise.

For the liner sector at least, more change is to come. With scale there is now a different approach to the way larger carriers operate. There are signs of increasing involvement in the wider logistics sector and at the same time we are also seeing more consolidation in the forwarding sector. While this is in an early phase, the trend is likely to accelerate.

There are still container lines in the mid-range who could be vulnerable to a lack of scale, but their ownership makes them unlikely candidates for a merger or purchase. That said, the remaining mid-range operators will likely be 'absorbed' eventually.

Inevitably scale and consolidation will continue. But there is a limit to the benefits of scale. As globalisation reaches its final stages of maturity and the inevitable transactional nature of huge scale companies reach their limit, downsizing will become an option again. Quality operators with excellent customer service that is not deliverable by scale will return or find an equilibrium in which to operate. For now, though, the rollercoaster goes on and size will continue to matter if lines are to survive the coming years. ***SN***

Size isn't everything

As an industry, we've been conditioned into thinking that big must mean better, the economies of scale mantra having been repeatedly chanted. But now that logic is being questioned. Dis-economies of scale are a real problem today, most obviously for large containerships which are struggling to fill their voluminous holds. Slow steaming has taken some of the pain out of overcapacity but that alone can't solve the problem of too many big ships plying the deepsea trades.

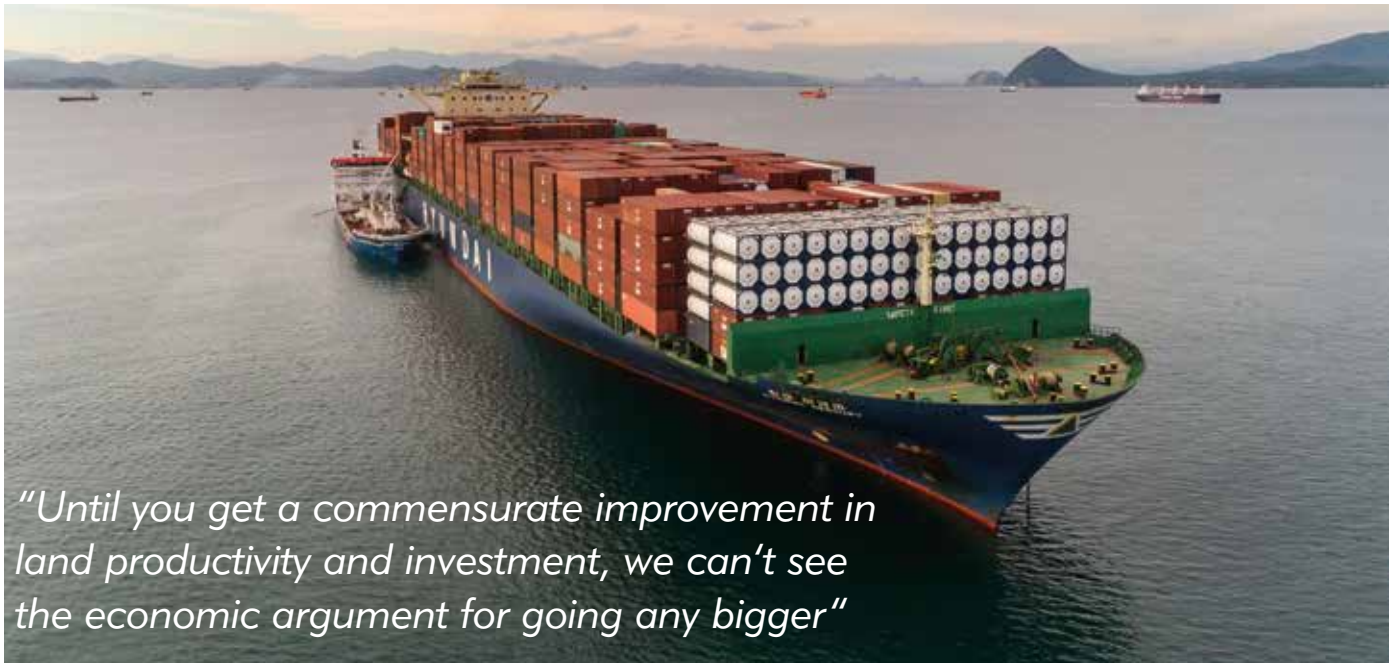
And the benefits and challenges of scale are not limited to ship sizes. Ports that need to cater to the whims of shipping lines and their thirst for the grandiose are also feeling the pinch of growth. Huge investment in equipment and infrastructure is needed, and with competition between regional ports rife there's no guarantee that the investment will reap the required returns.

How great an upheaval should we expect from automation and autonomy of ships, both of which could well be commonplace by the end of the 2020s? And then there's the huge pressure – now off the scale - of protecting the environment.

And what about the backlash against global mega-companies, which includes multi-national agents and forwarders? Distrust of service providers cited in a different country has pushed a drive towards local and regional businesses over international leviathans.

Scale in shipping has, it seems, become very much dependent on perspective. **SN**

Carly Fields, FICS
Editor



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Shipping Network is the official publication of the Institute of Chartered Shipbrokers and is printed by Cambrian Printers, www.cambrian-printers.co.uk/.

Bigger but not always better

Examining the growth of ship sizes, Felicity Landon asks where will it all end?

Felicity Landon

Big ships make headlines – and not only with the maritime faithful. Crowds turned out to see the *Emma Maersk* when it was making its maiden journeys in 2006. Whether we're talking the 12,000-13,000 teu initially declared or the 15,500 teu it has actually carried, this vessel was far larger than anything that had gone before.

What has happened since has simply dwarfed *Emma*, leading to today's container ships of 22,000 teu and counting – and plans on the drawing board even for 25,000 teu. A 'mine is bigger than yours' competition? Well maybe, but certainly not entirely.

Topic: Size

Key words: Growth; Capacity; Economies of scale

Background info: Ships are getting progressively larger, but there's a ceiling to optimum sizes from a commercial standpoint

Mega container ships have delivered economies of scale, reducing both cost and carbon per transported unit. The question is, how much bigger can they go?

There are two answers to this question – one technical, one operational, says Jan-Olaf Probst, business development director at DNV GL.

"Technically, there is still a lot of room. At present, the largest vessel on order is 400 metres in length and 61 metres in width. Lengthening a ship by 14.5 metres is enough for another row of 40-foot containers, or widening by 2.8 metres for another container row widthways. Mostly the industry likes to add one bay for two 40-foot containers, therefore we would go from 400 to 430 metres long; the next step would be 460 metres."

DNV GL studies have shown 460 by 64 metres could be feasible with current main engine and propeller capacity. However, Mr Probst says: "On that question 12 years ago, we would have said we were at the limit with regard to engine and propeller. Based on speeds as we were then of 25-26 knots, we had reached maximum dimension. But due to slower steaming, this has changed."

Operational needs

Operationally, the most logical reason for sizing up is around fuel choice, he says. Shipowners opting for liquefied natural gas (LNG) would have to poach cargo space to accommodate the LNG tank – an estimated 800 containers nominal capacity might be given up on a 24,000 teu vessel. "Perhaps an owner would decide to have a longer ship by one container to compensate for this loss. When talking about LNG, less cargo space is always one of the first topics raised."

Having said that, a full tank of LNG is much lighter than a tank of conventional fuel, so where a vessel loses in space, it can gain in weight capacity.

In fact, the real restriction on vessel comes from the landside: "The largest bottleneck will be the hinterland infrastructure," says Mr Probst.

It isn't the terminal itself, he says – the speed at which quay cranes can move boxes per hour is really impressive. This is more about handling massive peaks. Picture a 20,000 teu vessel, discharging perhaps half that in one port call. Half of those then go onto trucks: "That's 5,000 trucks for one ship.

"Therefore, the economies of scale achieved in the harbour-to-harbour move can be diminished later on through double handling of containers, longer dwell times and the terminal's ground logistics. That's where it is maybe better to have a continuous flow with a certain size of vessel; and that is perhaps the reason why someone will say 'now it is enough'."

That's not to say we'll go backwards, he insists: the pressure to reduce CO_2 emissions per transported unit can only increase in the future. Studies comparing 10,000 teu and 20,000 teu vessels

Technically there is still room for growth of container ships

Close to the limit

Simon Heaney, senior manager – container research at Drewry, believes we are close to the limit on containership size, at least for the time being.

"The current biggest is OOCL's 21,400 teu; we have 22,000 teu coming from MSC and CMA CGM and after that some 23,000 teu coming from Hyundai. Cosco has given the green light for the design phase of a 25,000 teu vessel. I would imagine they will end up building these – they have the resources and the will to do that regardless of economic logic. But we think not many others will follow them down that road."

Clearly the more boxes you can carry per ship the more savings can be made on fuel and operational expenses, he says – but he also raises a point: "The issue isn't what happens out at sea. It is the fact that the infrastructure hasn't increased at the same pace as the size of the ships. The relationship between port productivity and the biggest ships isn't necessarily there to justify them."

Drewry's studies have shown that when landside costs are factored in, the economies of scale essentially drop off after around 20,000 teu, says Mr Heaney. "Until you get a commensurate improvement in land productivity and investment, we can't see the economic argument for going any bigger."

Drewry believes the prime focus in future will be on much more flexible ships – at a size that still provides economies of scale and fuel efficiency. That means 15,000 teu-17,000 teu, still very large but this is a size that can squeeze through the enlarged Panama Canal. "I think they will be the workhorses in the trade. They provide the flexibility to go anywhere and I think this is the key thing that shipping lines need, so they can adjust to shifting demand patterns around the world and not be completely locked in – with the mega container ships, you are essentially banking on one trade, Asia-Europe."

Credit: Frans Berkelaar, CC BY-ND 2.0

Drewry believes that the market has reached a ceiling on boxship size

The mega ships are already creating headaches in the way they affect sailing patterns, creating a lot of peaking at ports, he says. "And maybe there will be more intra-regional trade growth as opposed to deepsea. Maybe some want the kudos of having the world's biggest ships, but most people in the industry see it as a negative now." *SN*

have shown that CO_2 emissions per unit remain lower even when the larger ship is running 20% empty.

But a balance will need to be considered between saving costs and carbon at sea and perhaps having a container sitting in the port for a few extra days. "There is potential to go bigger from the technical point of view but we must look at the whole logistics chain," Mr Probst says.

Growth pattern

As Andy Lane, Asia director at Sea-Intelligence, points out, until the early 1990s almost all container ships were designed to be able to navigate the (pre-expansion) Panama Canal – 294 metres long, 32.3 metres wide, approximately 4,600 teu.

"Maersk Line broke this with a 6,600 teu ship, 318 metres long, 42.9 metres wide; others followed and Maersk built larger with ship sizes progressively growing up to 10,000 teu."

When the global financial crisis hit in 2007, the container shipping sector had an orderbook of 40% of the existing fleet. But growth in demand slowed, stagnated and shrank, resulting in an ideal fleet of more than 25%.

"Despite compounding the overcapacity issues, larger ships were required to bring slot costs down to prevent more red ink on bottom lines. In 2012, Maersk launched the Triple-E range, with nominal capacity of just over 18,000 teu – with maximum speed of 23 knots, and designed for fuel economy."

The increase of 50% in capacity from 10,000 teu to 15,000 teu yielded a 25%-30% cost efficiency, but moving from 15,000 teu to 20,000 teu delivers less than 15%, while a further increase from 20,000 to 25,000 teu would achieve less than a 10% slot cost reduction, calculates Mr Lane.

However, he points out, the actual loadability of a ship is about 5%-10% lower than 'nominal capacity', depending on trade lanes and cargo mix. "The economy of larger ships is only realised when they are well utilised and with good paying freight. An 80% utilised 20,000 teu ship will barely be more economical than a 90% utilised 15,000 teu – from a slot cost perspective. That is a huge risk."

Added to that, shippers prefer greater sailing frequency and direct port pairs, which two or three services using mega vessels simply can't provide for – hence the formation of alliances such as the 2M, he says. And, of course, it is really only on the Asia-Europe trade where multiple services with ships of more than 18,000 teu can be deployed.

Next steps

So where will we go from here? Mr Lane says: "Just as 300,000 dwt very large crude carriers and, more recently, 800-seater A380 plans became maximums, container ships at around 20,000 teu are potentially also a maximum. Building significantly larger is highly risky in the current and perceived future horizons. An ideal (new) ship size might be in the 14,000 teu range – these are easier to fill and can be deployed on several trade lanes."

"Until you get a commensurate improvement in land productivity and investment, we can't see the economic argument for going any bigger"
Simon Heaney
Drewry

Credit: Graham and Dairne, CC BY-NC 2.0

He concludes: "The benefits of larger vessels have already been harvested and there are significant risks and disadvantages to building bigger or even more of the larger ones. Any decline in teu times nautical miles will result in greater demand for slightly smaller ships. The current orderbook is, however, skewed towards the larger ships, so average ship sizes on most trade lanes will continue in the short and medium term, and then likely plateau." **SN**

"There is potential to go bigger from the technical point of view but we must look at the whole logistics chain"
Jan-Olaf Probst, DNV GL

Cruise draws over-tourism rage

In Barcelona, Bergen, Dubrovnik, Venice and many other hotpots, the cruise industry has found itself in the firing line as part of a push-back against over-tourism.

For residents feeling swamped by thousands of tourists cramming their city's streets, cruise ships are a highly visible and obvious focus – even if in many cases their passengers are only a fraction compared with tourists arriving by air, road or rail.

However, the problems are obvious when one considers the giants that can carry around 6,700 passengers. Parallels could be drawn with the peaks of containers carried on 22,000 teu ships and the need to regulate the flow of 'traffic'. How can these city-ports draw a balance between attracting tourism and ruining the place those tourists come to see?

Bergen has recently introduced a policy of a maximum three cruise ships/8,000 passengers per day.

Cruise Norway operates an online 'cruise calendar' through which member ports can register their available capacity so cruise lines and itinerary planners can get an overview for the year to come.

In the US, there has been controversy at Bar Harbor; from only the occasional cruise vessel a few years ago, the number of calls has risen to the point where the place can be overwhelmed.

Megan Barber King, senior vice president, global strategic communications and research at Cruise Lines International Association (CLIA), says: "The cruise industry contributes $1.4bn to the global economy. And, limiting any one sector will not solve the problems of tourism management. Tourism sustainability is a much larger conversation than just the cruise industry. The cruise industry is only 2% of tourism overall."

Royal Caribbean's 362-metre Symphony of the Seas carries up to 6,680 passengers. But how big is too big?

Ms Barber King says: "There are as many ships being built in the yacht and exhibition class as there are in the larger classes of ships. CLIA cruise lines build ships to meet the demands of their guests. Guests are looking for all types of experiences, from the small, intimate ships that have access to some of the most sought-after locations around the world to the larger ships that have a greater variety of amenities and services."

There are definite efficiency benefits to the larger ships and they are some of the most technologically and environmentally advanced as well, she says. "As the ships expand to hold more people, the environmental footprint of their vacation goes down due to efficiency. In fact, some of our largest ships are zero waste to landfill. In the end, it is about giving guests the best experience and for some that means having something for everyone on one ship. Many guests are cruising with multi-generational families who want everything from race tracks and climbing walls to spas and casinos, which require space."

Larger ships are being shunned in some tourist hotspots

CLIA says the orderbook through to 2027 features a balance between large and small ships.

"The benefits of small ship cruising have never gone away," says Ms Barber King. "Some people want the experience of knowing their fellow travellers and crew in a smaller setting while seeing destinations that are inaccessible in larger ships. But cruise is still only about 1% of all leisure travel. There is a lot of untapped demand out there for ships large and small." **SN**

"Tourism sustainability is a much larger conversation than just the cruise industry. The cruise industry is only 2% of tourism overall"
Megan Barber King, CLIA

Heavy burden of filling mega MPVs

Felicity Landon finds that multipurpose ships are facing growing pains at the heavier end of the fleet

Felicity Landon

If there's one area where big really should be beautiful, it's the heavy-lift and project cargo shipping sector. But that's not necessarily the case.

Kyriacos Panayides, managing director of Singapore-based AAL Shipping, says: "Although we are seeing some project cargo types, such as wind components, increase in size exponentially – for example, Siemens is already talking about producing 150-metre-long wind blades – this size of cargo is still rare.

Topic: Multipurpose

Key words: Cargo dimensions; Supply/Demand; Growth

Background info: Ships catering to the heavy-lift and project cargo sector face the challenge of filling larger tonnage

"Whereas larger tonnage offers significant economies of scale and more flexibility to combine and carry cargo – very large and very small – on each sailing, the challenge is to fill them. With the global market showing a slow rate of recovery – estimated 1.2% growth in 2019 – and the filling and profitability of much smaller tonnage still proving to be a challenge, there is little appetite to invest in significantly larger vessels where the cost of running and break-even point is obviously much higher."

There are already several multipurpose vessels (MPV) reaching 60,000 dwt and these mammoth ships were created to serve specific fixed trade flows and their associated cargo volumes, says Mr Panayides. "But they are in the minority."

Reasons for scale

A global multipurpose operator serving the breakbulk, heavy-lift and project cargo industry, AAL's customers come from the energy, oil & gas, mining, forestry, leisure, agriculture and construction industries, among others. Its fleet of specialist multipurpose, heavy-lift vessels ranges from 19,000 dwt to 33,000 dwt.

"AAL was the first multipurpose carrier to trade 30,000+ dwt vessels in the spot market and our A-Class (31,000 dwt) and W-Class (33,000 dwt) vessels are still the largest within the tramp chartering market," says Mr Panayides.

He adds that of the global MPV fleet of about 1,750 geared vessels, fewer than 7% are vessels above 30,000 dwt. "The driver for our entry into the larger 'mega-size' (30,000+ dwt) segment was differentiation – placing ourselves into a market with less competition and where our expertise of having operated large tonnage vessels successfully and globally for many years would give us and our customers a competitive advantage.

"As a result of the fleet mix and business strategy AAL has in place, we carry a great deal of project cargo on long-haul routes. Of this market, wind energy components are particularly large and growing bigger every day. Today, we're carrying wind blades that are around 65 metres in length. In a few years, these blades could well be perceived as small."

Credit: AAL

Supply and demand is the main factor in heavy-lift vessel size

Lift importance

But it isn't just a matter of size – it's what you do with it. All of AAL's vessels are heavy-lift, with more than half featuring 700 tonnes maximum lift, "and this sets us apart even further", he says. "To illustrate, a recent study of the global fleet figures showed that the heaviest lifting is not necessarily attributed to vessels with the largest deadweight. In the premium project carrier segment, in which we are positioned, the heaviest lifting is commonly within the 10,000 dwt-20,000 dwt sector, whereas vessels over 30,000 dwt have far less lift capacity – circa 200 tonnes max lift."

So, what is the limit on vessel size in this sector and might we see more focus on smaller vessels?

That really depends on supply and demand, says Mr Panayides. "At the moment, the supply and demand ratio is set to stabilise in 2019, with weak demolition levels and newbuilding orders leaving the global fleet in a state of calm."

The total MPV fleet is about 3,200 vessels (non-geared and geared combined) with a total 29.7m dwt and an average age of 17 years (as at March 1, 2019). Within this number are just over 920 vessels with heavy-lift capability and only 348 of those with a lift capability of over 250 tonnes.

Mr Panayides says premium project carriers are among the youngest vessel operators in the fleet, with an average age of 10 years ("and AAL is even below that"), as compared with simple MPVs with lift of up to 100 tonnes and an average age of 21 years. "Over 35% of the fleet is aged 20-plus years and the overwhelming majority between 2,000 dwt and 20,000 dwt, which means that quite soon a high number of overaged smaller tonnage vessels will need to be scrapped and replaced." *SN*

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Meeting the oil demands of the deep

Ian Perrott asks whether size matters to the comparatively 'new' offshore sector

Ian Perrott

In shipping terms, the offshore vessel (OSV) industry is a relatively new sector in shipping despite having existed now for over 60 years. Those 60 years have seen a small regional fleet in the US Gulf grow to a worldwide fleet today of around 3,500 vessels. Apart from the growth of the fleet, the most striking change has been the steady increase in both their size and power.

The majority of the OSV fleet are platform supply vessels (PSVs) that carry cargo to and from offshore locations and anchor handling tug supply vessels (AHTS) that lift and position a rig's anchors and tow rigs from one drilling location to another.

Topic: Offshore

Key words: Power, Towing, Support

Background info: Offshore vessels have had to keep up with the oil industry's move to ever-deeper water and more demanding environments

AHTS vessels are traditionally described by a combination of their brake horse power (BHP), their bollard pull (BP) and the size of their towing and anchor-handling winches. Deadweight, cargo capacities, size and so on are factors but are less significant than for PSVs.

In the mid-1960s, when OSVs began spreading out from the US Gulf in numbers, a typical AHTS would have been no more than 2,500 BHP with 25-30 tonnes BP and a small double drum winch. As most drilling was carried out by jack-up rigs in benign waters, these capabilities were perfectly adequate. But as drilling rigs grew larger, oil exploration and production moved further offshore into deeper water, and with the growth of floating (semi-sub) drilling rigs, ever-higher BHP and BP were necessary, along with larger winches.

By the mid-1970s, the larger AHTS vessels had grown to over 7,000 BHP and 90 tonnes BP. Double drum winches could pull 150 tonnes with 200 tonnes brake load. Physically the vessels were over 60 metres in length with a deadweight of over 1,000 tonnes. This trend continued in line with larger rigs and deeper water drilling, but improving safety was also becoming significant increasing the capabilities of AHTS beyond what may have been strictly required.

Leap forward to today, and despite the current downturn in the offshore market, the very largest AHTS offers over 30,000 BHP with a BP over 350 tonnes. There are still smaller (5,000 BHP) AHTS vessels operating in benign shallow water regions but more normal are the AHTS vessels of 16,000-22,000 BHP with 180-250 tonnes BP which can handle the majority of demands made of them.

But the ceiling on their power has arguably been reached as ultra-deepwater drilling is now conducted by rigs operating on dynamic positioning rather than anchoring, and being self-propelled rather than needing to be towed.

Also, while it's not yet clear what the longer-term effects might be from the pressure to reduce emissions by reducing engine size, it's unlikely that the physical size of the vessels will need to grow significantly, if at all, in the future. Overall, we have probably reached the peak in AHTS power and size.

Growth spurt

Many of the influences that have driven the increase in the power and size of AHTS vessels have had the same effect on PSVs. In their case, the early 1960s saw PSVs with around 1,600 BHP, a deadweight of under 750 tonnes and a clear cargo deck area of under 300 metres squared. Today, the largest PSVs have over 9,000 BHP, a deadweight over 5,000 tonnes and a clear cargo deck area well over 1,200 metres squared.

Deeper drilling, larger rigs and platforms and longer distances from the base port to the offshore location have all been influential for this sector. However other factors have also contributed to an increase in PSV size. For example, a wider variety of liquid cargoes has called for much more dedicated tankage; dynamic positioning has required more engines, thrusters and power to be installed into these vessels; and crew sizes have risen from 8-9 crew up to 13-15 requiring more, and better, accommodation.

The ability for vessels to continue working in worse weather while improving the safety of the crew has also likely had some effect on increasing PSV size. However, as with AHTS vessels, we may now have reached the peak in the size of PSVs as a result of environmental concerns on vessel power plants, the collision risks of having heavier vessels operating alongside platforms, and the ability to load and discharge cargoes within a timeframe that still allows operators to use the vessel to react to a dynamic cargo environment.

The offshore vessel industry is always coming up with new ideas, so changing logistical practices and new technologies may mean even larger AHTS and PSVs in the future. But those same factors may also reduce vessel sizes in the future if issues beyond cost per tonne increasing in importance. **SN**

Ian Perrott FICS is a UK-based independent offshore marine consultant. Ian authored the Institute's first coursebook on the Offshore Support Industry in 2012.

Offshore support vessels have not been immune to the upscaling trend

Catering to every ship sailing the high seas

Drewry's Neil Davidson explains why ports do not necessarily have to keep pace with ship growth

Neil Davidson

The global container port market was close to 780m teu of throughput in 2018 and 15 ports were over 10m teu in size, with world leader Shanghai handling a staggering 42m teu in the year. Across the globe, container ports are striving to keep pace with the growth in ship size, but not all will win in the battle to gain market share. Who will be the winners and losers and does port size and scale guarantee success? Analysing key ports in a selection of markets reveals some important and sometimes counter-intuitive results.

Topic: Ports

Key words: ULCVs; Capacity; Limitations

Background info: Fears that terminals would have to be big-ship ready to be able to attract customers have proved unfounded

Firstly, ultra large container ship (ULCV) capability and scale does not guarantee success. Table 1 shows the volume growth of the main Pearl River Delta gateway ports in China over the last 10 years. The overall market has grown in size by over 20m teu in this period, an average rate of just over 4% per annum. The performance of individual ports though has been varied, with Hong Kong suffering a marked decline at the expense of mainland Chinese ports. This is also evident in terms of market share, with Hong Kong falling from a 37% share in 2009 to just 24% in 2018. Shenzhen has largely kept pace with the market while the shares of Dongguan and especially Guangzhou have forged ahead.

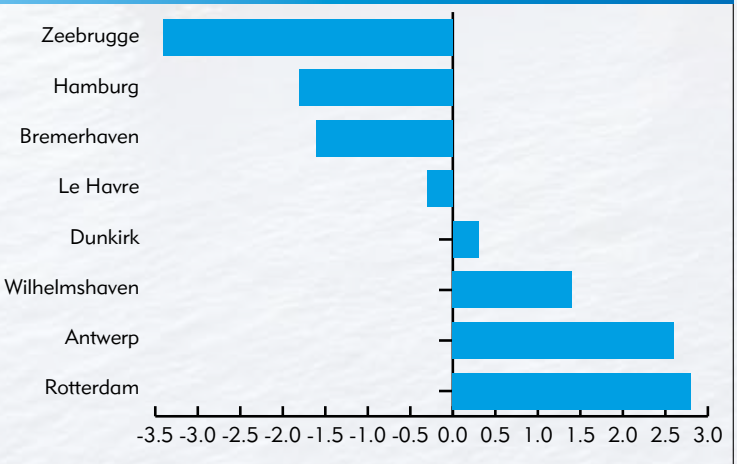
What is clear from this analysis is that Hong Kong has lost out, despite being a long established, very large port with critical mass, and despite having the ability to handle ULCVs. Meanwhile Dongguan and Guangzhou have taken market share despite being upriver ports compared with Hong Kong. There are a number of factors at work here, not least of which is that the mainland ports are closer to China's factories, which have seen huge growth since the opening up of China's economy. Much of Hong Kong's traffic is barge volumes, carrying cargo to and from the mainland before being shipped internationally, and these barge moves have been replaced in part by direct mainline vessel calls in ports such as Guangzhou.

Navigational aids

Secondly, ULCV navigation limitations are not necessarily an impediment. Table 2 provides a similar analysis for Northwest Continent ports in Europe. Here, the average market growth has been 3.5% per annum, and Antwerp and Rotterdam have outperformed this (as has Dunkirk, albeit from a much lower base and on a smaller scale). Figure 1 shows the changes in market share of all the ports, with Rotterdam and Antwerp joined by new entrant Wilhelmshaven. The established German ports of Hamburg and Bremerhaven have both lost market share, as has Zeebrugge, which has suffered most.

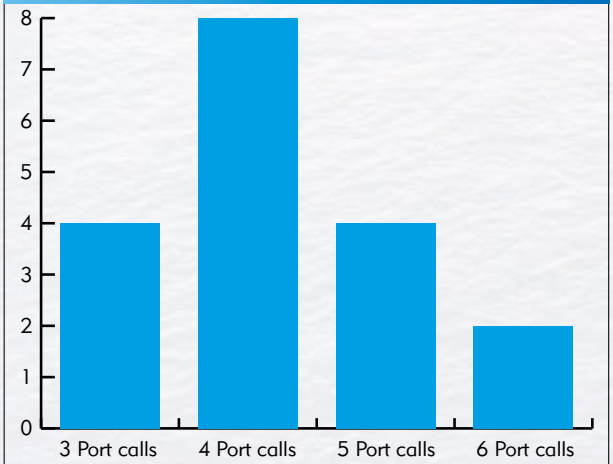
Rotterdam's success is at least in part due to its addition of significant new big ship-capable capacity at Maasvlakte II (and both new terminals have direct or indirect shipping line shareholders), along with the port's other inherent attractions. However, Antwerp has increased market share despite its upriver location and tidal window challenges of ULCV navigation. Its Belgian neighbour Zeebrugge is ideal for ULCVs as it is a very small deviation from the main shipping channels and has few tidal access restrictions. However, it has seen a sharp loss of share (and the consequent

Figure 1 Main northwest continent ports: Change in market share, 2009-18 (%)



Source: Drewry Maritime Research

Figure 2 Number of North European port calls: Asia-North Europe services (2M, Ocean and THE), 2019



Source: Drewry Maritime Research

closure of two of its deep-sea terminals). It remains to be seen whether Cosco ownership of the remaining deep-sea container terminal in the port will reverse the trend.

In Germany, Hamburg has lost share and some of the blame for this is placed on the delays to dredging the River Elbe, and the resultant restrictions on ULCV access, but the collapse and recovery of the Russian transhipment market is also one of the issues at play. Meanwhile Wilhelmshaven is a new port and ideal for ULCVs, but has been slow to gain traction (despite having an APM Terminals/Maersk ownership stake).

Clearly in Northwest Europe, there is a complex web of factors at work. Ports like Zeebrugge and Wilhelmshaven, with the easiest access for ULCVs, have not had an easy ride, and Antwerp, with its more challenging ULCV access, has still profited (aided by strong support from major customer MSC).

Multiple calls

Another key factor which goes against the idea that only supersize ports lie ahead for the industry is that multi-port calling is still the norm, even for ULCVs. For example Figure 2 shows the number of North European port calls on the rotations of the 18 weekly Asia-North Europe loops operated by 2M, Ocean and THE alliances. All of the loops have at least three port calls and four ports is the most favoured option. Two of the loops make six port calls in North Europe.

At one time, there was a school of thought that very large container ships would only call at one or two ports at each end of the trade route they served, with cargo being transhipped at these mega-hubs to serve a range of outports. This has not proven to be the case as the multi-port calling pattern has prevailed, even for the largest ships. A desire to minimise transhipment costs and transit times are factors at work, plus a continuing excess of ship capacity has meant that lines are prepared to add port calls and make deviations with mainline vessels (even well into the Baltic in the case of Asia-North Europe services). Transhipment remains part of the story of course, and this aspect of activity does tend to concentrate in a few large hubs.

Some conclusions can be drawn about what it takes for ports to win the battle for market share, as shown in Table 3.

Cargo is king

Overall, it is clear that just because ships (and alliances) are getting bigger, this does not mean that ports have to as well. Scale is certainly important for transhipment hubs, but much less so for gateway ports, where location and inland links are key. Also, the ability to handle large ships is no guarantee of success, and conversely limitations on handling large ships do not necessarily exclude the right ports from the game. There are workarounds evident in many locations.

A more pressing issue is the fragmented nature of terminal capacity in many ports. On the surface ports may appear big enough, supersized enough, but beneath this, the actual operational terminal capacity is fragmented. The idea of terminal alliances has been mooted and is being tried, and it remains to be seen whether they can provide a sustainable answer to this challenge.

Ultimately the success of ports is about the cargo and not about the ships. Cargo is king. SN

Neil Davidson is Drewry's senior analyst for ports and terminals, www.drewry.co.uk.

Table 1: Main Pearl River Delta gateway container ports: Volume growth/decline, 2009-2018

Port	Average annual growth rate (CAGR)	Absolute volume growth/decline (m teu)
Dongguan	30.8%	3.73
Guangzhou	7.8%	10.74
Shenzhen	3.9%	7.49
Hong Kong *	-0.9%	-1.45
Total	**4.1%**	**20.50**

* Excluding barge volumes

Source: Drewry Maritime Research

Table 2: Main Northwest Continent ports: Volume growth/decline, 2009-2018

Port	Average annual growth rate (CAGR)	Absolute volume growth/decline (m teu)
Dunkirk	8.0%	0.21
Antwerp	4.8%	3.79
Rotterdam	4.5%	4.78
Le Havre	2.9%	0.65
Hamburg	2.5%	1.72
Bremerhaven	2.1%	0.92
Zeebrugge	-4.1%	-0.73
Wilhelmshaven	n/a	0.66
Total	**3.5%**	**12.00**

Source: Drewry Maritime Research

Table 3: What does it take for ports to win the battle for market share?

Factor	Comment
Ability to handle ULCVs (or the largest vessels in the trades calling in your port range)	Essential, but not enough on its own. Some big ship-capable ports are losing out
Limitations on handling ULCVs (or handling the largest vessels in the trades calling in your port range)	Not necessarily an impediment. Some ports with navigational limitations are still gaining share
Location, location, location	Key factor
Good inland transport links and proximity to cargo generating areas	Key factor for gateway ports
Large scale port	In transhipment markets, scale and critical mass matters (small hubs are increasingly struggling)
	In gateway markets, being a large port is not necessarily a prerequisite for success. Smaller gateway ports can be successful
Shipping line involvement/affiliation in terminal ownership	In transhipment markets, increasingly essential for success
	In gateway markets, it should help but is no guarantee of success

Source: Drewry Maritime Research

Growing great oaks from little acorns

Shipping Strategy's Mark Williams discusses the future loci of shipping demand

Mark Williams

Readers with longer memories will recall the glory days of globalisation at the beginning of the current century. Jim O'Neill, then head of research at Goldman Sachs, predicted in 2001 that the then BRICs countries – Brazil, Russia, India and China (South Africa was added in 2010) – would out-grow the G7 in part due to globalisation. In his original BRICs research note, Mr O'Neill forecast that: "Over the next 10 years, the weight of the BRICs and especially China in world GDP will grow, raising important issues about the global economic impact of fiscal and monetary policy in the BRICs." In other words, how the BRICs governments managed tax/spend and interest rate policies would have a bigger global impact than previously. Few of us understood at the time the enormous positive impact BRICs growth would have on global shipping markets. We rarely mention the BRICs now but Mr O'Neill's analysis remains startlingly accurate.

Topic: Demand

Key words: Imports/exports; Emerging nations; Global economy

Background info: The BRICs countries and others chasing at their heels have the power to drive shipping trade in the future

At their recent annual congress, in response to flagging growth, Chinese policy makers promised bigger tax cuts and more infrastructure funding for 2019 and announced substantial liquidity increase. Tax cuts, government spending and expansionary monetary policy are all being used to support Chinese GDP growth, with global ramifications. These policies will of course colour China's approach to its trade negotiations with the US. They will also directly affect China's imports of energy and raw materials, directly impacting global shipping markets. Already China's environmental and trade policies have impacted iron ore imports, driving the Baltic Capesize Index to unploughed depths.

In India, GDP growth is slowing in an election year. GDP rose 6.6% in the final three months of 2018, according to the India Central Statistical Organisation, down from 7% and 8% in the previous two quarters. India's Reserve Bank cut interest rates in February 2019 and will probably do so again this year. Prime Minister Narendra Modi will also be keen to announce more business-friendly policies and government spending to boost economic growth, led by state-owned enterprises like the National Highways Authority and the Food Corporation of India. India is now the world's fifth-largest economy. State borrowing is so great that government bond coupons remain stubbornly high despite generally low inflation and falling interest rates. Without the State, Indian economic growth would be considerably lower, a position reflected by its stock market.

Credit: GovernmentZA, CC BY-ND 2.0

India Prime Minister Narendra Modi is looking to bring in more business-friendly policies to boost economic growth

South America

In Brazil, currently the ninth-largest economy in the world, a new populist president is introducing business friendly policies, but the effects are yet to be seen after years of political and corporate scandals. GDP growth for Q4 2018 was 0.1%, down from 0.8% the previous quarter, while annual GDP growth is running at a 1.1%. Industrial output fell year on year in January by 3.6% while retail sales fell 2.2%. President Bolsonaro proposes reforms to social security and state pensions to rein in Brazil's unsustainable public deficit which restricts the central bank's freedom of movement in monetary policy and prevents the government from lowering taxes to promote growth. Yet investor consensus is that Brazil's central bank will not lower interest rates this year from their long-term low of 6.5%.

Brazil is a global top-five agri-producer and exporter. It is home to iron ore mega-miner Vale and to oil major Petrobras. It is hard to overstate its importance to bulk shipping markets. It lies second place in the export growth top ten, with a five year average of 5.7% growth to $220bn in 2017 putting it in 22nd place globally, while its imports of $140bn bespeak a helpful trade surplus. Brazil's top exports are soybeans – about 12% of all exports by value last year – then iron ore (9%), crude oil (8%) and sugar (5%). If President Bolsonaro's reforms are effective, one might reasonably expect Brazil to grow its exports significantly over time.

Russia dulls

Then there is Russia. Annual GDP growth was 2.3% in 2018 according to the Bank of Russia which notes, "December

recorded a decline of growth rates in industrial production, construction volumes, real wages and retail sales." The central bank maintained interest rates at 7.75% in February. In September 2018, President Putin announced a three year, $24bn project to build highways and airports, adding to the $52.3bn development fund created to cover infrastructure spending by 2024, which he created after his election victory in May. Russian economic news is frequently less noteworthy than its foreign policy and overseas military adventures. Western sanctions and political tension limit certain activities of its citizens and corporations. But it remains the 12th largest economy by nominal GDP, and, along with Saudi Arabia, is in the top two oil producing and exporting nations. Its oil exports and its deal with OPEC are key to tanker market fortunes.

In all four of the original BRICs, populist strongman leaders maintain strict political control while following standard economic management theory, pulling the levers of fiscal and monetary policy to promote economic activity and trade. The consequences of their policy decisions play out in the shipping markets. So we should still talk about the BRICs because shipping's fate will remain intrinsically connected to theirs.

The chasing pack

Beyond the BRICs are a number of fast-growing countries which will generate shipping demand in the future, not on the scale of the BRICs but significant nonetheless, because they have the largest national populations.

Almost 60% of the global 7.5bn population lives in the ten most populous countries according to the World Economic Forum. The BRICS today – including South Africa – make up about 40% of the total, the US adds another 4.3%. The other top 10 nations: Indonesia, Pakistan, Nigeria, Bangladesh and Mexico, total 13% of the global population with 945m people. Logically, these countries will provide much of trade demand growth in the coming decades (assuming that current populist and isolationist policies are short-lived phenomena). They already appear in the leading export growth nations' top 10.

Which of these countries enjoyed the fastest average growth in exports in the five years to 2018? Answer: Bangladesh with a 6.6% growth rate.

Bangladesh's exports are focused on the textile trade and were worth $39bn in 2017, putting it 54th out of 221 in global export rankings. Its imports, worth $44bn for the same year, were focused around textiles raw materials, plus electronics, steel, foodstuffs and refined petroleum products. With its growing population, Bangladesh has a large and cheap available workforce and one could feasibly expect it to make a growing contribution to shipping demand.

Mexico, in third place with 5% average exports growth over five years, exported $418bn of goods in 2017, compared to $356bn of imports. With its main export partner across its northern border, Mexico is not a significant contributor to ocean going shipping demand, though some of its exports of vehicles and vehicle parts, which contributed a quarter of total exports, do go in containerships. US presidential threats to close the border with Mexico don't presage confidence in growth in these components. Mexico's oil exports, 5% of the total by value, contribute less to global oil shipments than they might. Current policy is to expand oil production from 1.7m barrels per day (bpd) towards the 2004 historical peak of about 3.3m bpd, though much of this is aimed at domestic demand.

In shipping we know lots already about Russia (3.8% average five-year export growth rate) China (3.6%) and India (3.5%). The other top ten populous countries had average export growth rates of below 3% a year.

Growth forecast

I find the IMF's forecasts of export growth in the coming five years to 2023 to be of interest. Bangladesh comes top again with 8.8% expected average growth in exports, followed by Pakistan (8.3%), India (8.0%), Indonesia (7.4%) and Mexico (4.8%). Pakistan's $24bn of exports in 2017 were – like those of Bangladesh – focused on textiles while a third of its $55.6bn of imports are combined petroleum products, crude oil, palm oil and cars. Leaving aside India and Mexico, the other country of interest is Indonesia, currently the world's 25th largest exporter. Exports of $188bn in 2017 were led by coal (10%), palm oil (10%), LPG (5%), rubber (5%) and crude oil (5%). Indonesia's imports of $153bn in 2017 were led by refined petroleum (9%), crude oil (5%) and telephones (3%). If global coal consumption is peaking, and global palm oil consumption is becoming politically unfashionable, Indonesia is going to have to find other things to export.

Total imports and exports in our top ten list were worth $3.4trn in 2017 and, on the basis of the IMF forecasts, could grow by 15% to $3.9trn in 2023. If these countries are to provide the core of shipping demand in the coming years, we will be watching for political stability, improving standards of governance, investment in infrastructure and technological advances to improve productivity. All of these can stimulate shipping demand, if the political will is there to support trade. But, as is the case with climate change policy, populist notions of self-sufficiency, and the global fashion for rejecting palm oil, governments and consumers have plenty of scope to alter the trade landscape. **SN**

BRICS countries have increasing influence on shipping trades

Dealing with the upheaval of autonomy

The Nautical Institute's John Lloyd examines how automation will affect job opportunities in shipping

John Lloyd

The dawn of automated shipping offers potential to improve vessel performance and enhance safety but also to disrupt the labour market through changes to some job roles and the disappearance of others. The shipping industry must consider how this approaching evolution will impact the seafarers underpinning global trade.

Autonomous ships are nothing new. Although yet to extend to cargo vessels, MASS (marine autonomous surface ships) are very much a current phenomenon with the military using unmanned ships, and small autonomous research vessels being tasked with environmental exploration such as collecting data from the ocean floor.

Topic: Autonomy

Key words: Robotics; Careers; Change management;

Background info: As the shipping industry careers down the path to automation of ships, there needs to a step-change in mindsets

What is new is the proposed upscaling of automation. Wider use of collision avoidance systems, condition monitoring and route planning is predicted, for example. These changes offer to radically reduce human error and risk, decrease costs and increase overall efficiency by shifting roles away from routine tasks towards high level problem solving, monitoring and support.

Various levels of automation exist, and each will impact on maritime jobs. Semi-automation brings with it human-robot collaboration requiring seafarers to adapt to working alongside robots and automated systems and understand complex IT systems, as well as their risks and limitations. Unmanned vessels, projected by some to appear by 2030, will call for highly skilled remote control operators working ashore with a great awareness of the safety and security risks that would accompany a crewless ship.

One possibility is that vessels will work autonomously on the high seas, then be taken into ports and congested areas with the help of specialist teams. In this case, the ship would do most of the work autonomously with seafarers taking a supporting role – a key change from traditional shipping. Other designs would enable onboard crews to leave the bridge to work autonomously while they attend to other tasks unless a problem occurred on the bridge.

Questions remain

While the development of these automated systems is under way, there are questions yet to be answered: Will the current training programmes be valid? Will compulsory sea time still be relevant? Which tasks must stay on board? How much control can really be delegated ashore? What training will be needed for those operating vessels from ashore and how will it be provided?

Yet, even if vessels operate fully automated, the change will offer plenty of opportunities for mariners and the maritime sector at large. Autonomous vessels will reduce operational costs, especially where crewing and fuel are concerned. Reduced fuel consumption would be achieved through the removal of crew accommodation, which would streamline the vessel, cut down the power required for domestic use and leave more room for cargo.

Credit: Rolls-Royce

Remote operating centres require different skill sets

The potential to increase safety is another key argument for the advance of autonomous shipping. Hazardous tasks such as entering enclosed spaces could be automated so as to reduce risk. Surveying and other checks undertaken in double bottoms could be carried out by drones instead of humans. Common causes of accidents, such as fatigue or loss of concentration, could also be avoided. In this way, the potential to safeguard human life is significant. It is frequently said that 80% of accidents are caused by human error, so the prospect of removing or reducing the human factor from the risk equation is attractive.

In order to thrive in a technology-centred workplace, both employers and employees must engage in continuous learning, and this should provide motivation for investment in training and the infrastructure needed to support it. The resulting upskilling would relieve seafarers of repetitive traditional responsibilities, allowing them to engage in higher level tasks and increase their earning potential.

Career choices

Automation will also see the birth of brand new roles. While it is difficult to predict what these might be, possible examples include:

- Analysts to examine data sent ashore from ships
- Remote control room operators to monitor and optimise performance
- Specialist crews to guide ships into ports and congested areas.

For seafarers coming ashore to take on monitoring and remote control roles, automation also offers reduced time at sea and the

luxury of more time at home with loved ones, which could improve wellbeing. On the flip side, smaller crews may leave those left on board vulnerable to loneliness, depression and other mental health issues. Whatever happens, employers will need to monitor how their crews respond to the upcoming changes with great care.

One might think that the increased use of robotic technology calls for a reduction in professional development. In fact, the era of automation asks for a greater focus on the human element than ever before. Experienced seafarers will have to adapt while the succeeding generations will enter a seascape quite different to that we know today. The challenge will be to identify which competencies will be required and then to meet the demand through constant career guidance and continuing professional development.

Automation has sparked growing concerns about job security in the maritime sector – and with such changes on the horizon, that is completely understandable. However, seafarers should feel reassured that any introduction of automation to cargo vessels will be a slow ripple over the next 30-40 years, rather than a sudden wave. Not only this, but manned vessels will operate for decades to come – they will not simply disappear overnight.

Some types of vessels are unlikely to experience full autonomy. Cruise ships, for example, will always demand a human crew. These vessels rely on the trust of thousands of passengers, many of whom won't want to be piloted around the Caribbean with a robot at the helm.

No shortage

A Hamburg School of Business Administration for the International Chamber of Shipping study into digital disruption suggests that even if as many as 3,000 autonomous and semi-autonomous ships were to be introduced by 2025 there will be no shortage of jobs in the foreseeable future. It argues that the nature of roles may alter with a greater need for highly skilled remote operators onshore, pilots and riding gangs.

This shift in the workforce will require seafarers to adapt to complex IT systems. They might have to deal with regular connection issues and understand coding. They will have to know how to run systems and identify their limitations, including high-level cybersecurity threats.

There will also be a period where crewed and autonomous ships are at sea simultaneously and this will bring fresh challenges as it will require national, regional and international cooperation. To handle those challenges with good seamanship, the transition must be gradual and undertaken with the help of experienced sea masters.

The reality is that we just don't know the nature of the jobs that will appear in the future. For that reason, employers will be seeking adaptability and a willingness to learn.

There will be challenges as we voyage into uncharted waters, but with the help of training, re-training and mentoring, seafarers can adapt to new working environments. It will be essential to focus on the security and resilience of both the workforce and the ships themselves.

The Nautical Institute is dedicated to supporting those in control of seagoing vessels. With greater automation, the need for professional development will grow even stronger. The Nautical Institute will seek first to identify the new competencies required, then to ensure seafarers are equipped with the skills needed, and subsequently to help them develop and maintain such skills.

Training needs will be defined by the IMO, but as always these will form a basis and responsible employers will seek to go beyond this. We will endeavour to share knowledge through relevant publications, seminars and courses, help shape agendas at the IMO and offer professional guidance to those transitioning between roles.

Aspiration or reality?

Describing the future in this way challenges many current ways of thinking. In fact, progress along those lines is completely dependent upon the development of a cost-effective solution for autonomous ships. There seems no doubt at the moment that the cost of reliability and the exorbitant cost of failure is a deterrent from making the required progress.

At the same time the regulatory framework does not support the operation of unmanned ships in an international environment though much progress can still be made in domestic waters.

What is important is that mariners take the lead in shaping the future of shipping. If we fail to do so we will be at the mercy of technologists without the specialist maritime knowledge to implement change effectively and safely. The Nautical Institute will continue to work at the cutting edge of innovation to deliver safer more effective operations and to support those in control of ships. **SN**

Captain John Lloyd FNI is chief executive of The Nautical Institute, www.nautinst.org.

Credit: Rolls-Royce

The world's first remote and autonomous ferry is already on the water, pioneered by Rolls-Royce and Finferries

Oiling the wheels of marine fuels

Operators need to become savvier when purchasing marine fuel, finds Kate Jones

Kate Jones

There are so many things to think about with cargo shipping, it can be easy to neglect what actually makes vessels move – marine fuel. It may already be one of the biggest cost headaches for ship operators, but it's about to become even tougher for those sourcing marine fuel for vessels, with less than a year until the International Maritime Organization's 0.5% mass by mass limit becomes enforceable on sulphur in fuel oil used on ships globally (IMO 2020).

Marine fuel is on the cusp of what Robin Meech, managing director of independent consultancy practice Marine and Energy Consulting, describes as "the most significant change to the bunker business for 40 years for both suppliers and purchasers" through IMO 2020. Although oil and gas giant and marine fuels supplier Shell argues that the shipping market will continue to require various fuel types to meet sector demand, according to Mr Meech, the next three years will constitute "a shakedown time", with only the nimblest taking advantage of the changes. Others, meanwhile, are set to discover that their bunker costs could increase by more than 25%. Mr Meech also notes that with greater prices, suppliers will require more credit to be able to offer 30 days to charterers and shipowners. Therefore, both equation sides will need increased working capital.

Topic: Bunkers

Key words: IMO 2020; Decarbonisation; Energy

Background info: Incoming IMO regulations will shake-up marine fuel purchasing and drive further development of the viability of alternative fuels

Brave new world

"The world is changing," Mr Meech says. "Larger owners are renting oil tankage and bulk-buying bunkers that they can ascertain will not cause operational problems currently associated with the wide range of 0.5% blends slowly coming onto the market. Compatibility is expected to be a key problem, as well as higher levels of cat fines, lower flash point and pour point issues."

According to Mr Meech, buyers need to have a closer relationship than ever before with their suppliers. That, he says, is more easily done when trading on regular routes, although this throws up complexities for the spot trader.

"There is talk of more contracting, which may well occur, but if history is anything to go by, owners will wait and see," he says. "Charterers buying bunkers will go for the cheapest. Next year, this is even more likely not to be the lowest-cost way to buy bunkers."

Mr Meech claims that more value could come from instigating pre-testing to avoid costly problem fuels that will inevitably be in the market. That said, not combining different stems is the simplest and most-effective method of avoiding issues and minimising costs while obtaining best value for money.

Mr Meech also notes that for any vessel consuming over 10,000 tons per annum, exhaust gas cleaning systems (scrubbers) will probably be feasible, even if an owner doesn't commission their system until 2020 to 2021. The viability of scrubbers, he argues, is even more attractive, and may well be the way forward, for smaller ships, particularly those operating in Emission Control Areas.

Call for co-operation

Joerg Erdmann, senior director for sustainability-management at Hapag-Lloyd, believes that co-operation is vital when dealing with IMO 2020.

"IMO 2020 and even more greenhouse gas targets for 2030 and 2050 can only be managed in collaboration," he says. "Fuel providers and fuel developers play an important role here."

At the time of writing, new International Organization for Standardization standards for IMO 2020-compliant marine fuel were anticipated to be put out by the middle of this year.

Mr Erdmann anticipates that both high- and low-sulphur fuel will go into making up the marine fuel mix in the future.

"Marine fuel will be a blend of high- and low-sulphur fuel oil containing maximum 0.5% sulphur," he predicts. "Over time, this likely will transfer more and more to 0.5% distillate. For the containership sector, liquefied natural gas (LNG) is a viable option in the years to come."

Mr Meech says anticipated price rises for low-sulphur fuel have not yet registered in the futures market. However, even

Both high- and low-sulphur will be part of the future marine fuel mix

with slowing world economic growth and a general rejection of distillate fuels inland, an acute rise in distillate demand will take place late this year, partly driven by crude oil price hikes.

Switching 2.6m barrels per day from high-sulphur fuel oil to 0.5% fuels will require more barrels to be processed. Refineries will require more energy; more residual will be consumed in the inland market because of lower prices, raising demand for refined products and thus crude oil. And refiners will look for sweeter, lighter barrels which will reduce the average density of the world crude oil slate, demanding more barrels to supply the same energy. Furthermore, rapidly increasing crude oil demand will lead to greater prices prior to the market responding.

"There will be a large surplus of high-sulphur fuel oil, leading to lower prices," says Mr Meech. "Refiners will compensate by raising the prices of the lighter barrels. Distillate prices will rise – buyers who are hedged will achieve above-average results."

Quality and availability

In response to the question of what might help or hinder the supply of marine fuel in the future, beyond the 2020 sulphur limit supply challenges, Mr Erdmann says: "The quality of the fuel is essential, as well as the availability at the major bunker hubs. Those who can manage that well are at a clear advantage."

"There's plenty of crude oil out there and the demand for refined products will be increased as a result of IMO 2020 … but this will not inhibit the availability," adds Mr Meech. "Larger hubs will soon have all products available, as will many of the secondary ports. … Increased take up of scrubbers will assist the availability issues. There will be a squeeze on hydrogen supplies, both from third parties and within some refineries, but this tightness will be alleviated rapidly, increasing the supply of lower-sulphur fuels."

Longer-term, the idea that shipping needs to reduce its carbon footprint must be accepted, Mr Meech says. Indeed, something to keep in mind are developments surrounding alternative sources of marine fuel: in March, CMA CGM, the Port of Rotterdam and the GoodShipping Program, along with furniture giant IKEA, announced the successful refuelling of a CMA CGM vessel with marine biofuel oil derived from forest residues and waste cooking oil products. The September before that, the GoodShipping Program said that it had supplied a small containership with 22,000 litres of Hydrotreated Vegetable Oil – cooking oil transformed into diesel. Furthermore, in April, DNV GL announced it had signed a deal with Keppel Marine and Deepwater Technology to increase the uptake of LNG as vessel fuel. Other alternative sources of marine fuel currently being explored include ammonia and electricity.

"There are many lower-cost ways to reduce the generation of carbon – hydroelectricity, forestation and LNG to a point," says Mr Meech. "The Energy Efficiency Design Index is having the required impact, but we will soon be nearing the limit for marine with the current technology both in and outside the engine room. Owners will be more likely to reduce their emissions with economic incentives."

Maximising supply

Mr Erdmann believes that in order for operators to get the most for their money when it concerns purchasing marine fuel, it is best to "negotiate supply with the oil majors for high volumes and good quality". However, Mr Meech feels that operators can "better manage their purchasing strategies" when buying, and optimising use of, marine fuel.

"Many owners do not manage their bunker purchasing to the degree they should," he explains. "It's the largest operational expenditure for practically all owners and charterers, but many do not set the right targets, often considering lowest price, rather than lowest cost, to be the measure."

Mr Meech believes that risk management of price, quality and availability all need to be combined. Software packages are out there to help with this and with optimising bunker purchases. However, Mr Meech advises that such management aids should never be adopted until they are well understood. "Make sure you know at least two other owners who have obtained real benefits from a proposed new system before committing to it," he says. ***SN***

Worrying growth in rogue wave frequency

Shipping needs to be better prepared for the devastating effects of exceptional waves says Vittorio Lippay

Vittorio Lippay

Captain Jules Dumont d'Urville, in his accounts on the 1826 voyage of the corvette *La Coquille*, is recorded as the first scientist to report seeing sea waves of up 100 feet in the Indian Ocean. But like many seafarers before and after him, the French navy officer and naturalist was accused of exaggerating and was even ridiculed by the astronomer and mathematician Arago.

Topic: Sea state

Key words: Wave formations; Safety; Stability

Background info: Unique wave formations pose an increasing threat to the global fleet

Credit: Captain Roger Wilson; NOAA Photo Library, CC BY 2.0

A 60-foot rogue wave hits a tanker headed south from Valdez, Alaska

Almost a century and a half later, in 1964, the British physicist Laurence Draper of the National Institute of Oceanography published a paper where he stated that "such monsters can occur". Mr Draper reported finding traces of a 67-foot high wave from crest to trough in the records of the *Weather Reporter*, a British weather ship operating in the North Atlantic.

Scientific attention, however, only really focused on the phenomenon in 1995 when the laser detectors of the Draupner platform of Statoil registered a 26-metre high wave hitting the platform. It then took until January 1, 2000 for the European Union to start project MaxWave in an effort to understand how frequent the phenomenon was. MaxWave relied on synthetic aperture radar satellites (SAR) to monitor the sea surface while flying over 10 by five kilometre sea tiles. Within the 30,000 images taking from the satellites ERS-1 and ERS-2 the MaxWave team found ten single waves higher than 25 metres in a three-week period. This concluded that the phenomenon was not only real but also unexpectedly frequent.

Defining moment

A reason why the scientific community lagged behind observations can be found in the standard linear waves theory, used by oceanographers and engineers. The linear theory excludes the formation of waves disproportionately higher than the significant wave height (Hs), or the average height of a third of the highest waves observed in a specific sea state. When the 26 metre wave hit the Statoil platform, the significant wave height was 12 metres. Extreme waves have also been reported in almost calm seas.

Hence a current definition of a rogue or freak wave is that of a wave with a height exceeding twice the significant wave height in a sea state, from crest to trough. Rogue waves have also been shown to exist in liquid gases, electromagnetic waves, atmosphere, and plasmas.

Ocean waves form a chaotic system: the process is deterministic only over very small timescales and in chaotic processes small differences in the initial conditions can produce largely diverging issues. Often the starting conditions cannot be measured precisely because of several factors, such as instrument failures or the conditions of the sea. Predictions thus need to be made primarily using statistical methods. It is necessary, however, to understand the formation mechanism of extremes by restricting the preliminary conditions.

By the turn of this century, the now evident importance of the issue for the shipping and oil industries triggered intensive research which converged towards two possibly non-conflicting formation theories: the linear interference and the modulation instability. Both were also tested in laboratory water flumes and shown to generate rogue waves.

Linear Interference

Constructive interference occurs when two waves with similar frequency and almost equal phase meet, coming from different directions. Their amplitudes – in this case: their crests – sum with a corresponding increase of energy. Back in the 1950s British mathematician and oceanographer Michael Longuet-Higgins proposed constructive interference as explanation for the formation of the higher sea waves.

Longue-Higgins's hypotheses were revisited in the 2000s: he found that extraordinary high waves would form at sea on the rare occasions when an adequate number of waves added up their crests. In 2016 Simon Birkenholz and his co-workers, at the Max Born Institut in Berlin, stressed the role of wind forcing,

summarising the conditions when extraordinary waves can form according to the linear model: coastal and subsea characteristics channelling waves together; waves with different directions meeting because of a low pressure that leads to converging winds; and/or because of winds changing their direction over a wide range. Their simulations revealed that an extraordinary wave is likely to form if the factors above combine, thus producing an "effective wave number" of 10 or greater. Simply put, when winds blow strong enough from different directions they help form many waves some of which – 10 or more – may combine crests.

Birkenholz and co-workers believed that the meteorological conditions on January 1, 1995 – with a pronounced depression off the Norwegian coast and strong winds westwards of the Statoil platform – supported their conclusions. The team suggested using meteorology, mainly wind changes or convergence over large areas, together with the other elements, to evaluate the possibility of having reached the critical "effective wave number" for a rogue wave in defined situations. Further, they suggested the construction of an early warning device that, if placed on a ship's mast, could provide data on the sea state in time series of 20 minutes feeding a computer that will yield a parameter for the captain to know when the critical level is reached.

However, while this linear interference picture fits well to some situations, it does not explain the observation of isolated rogue waves in almost calm circumstances.

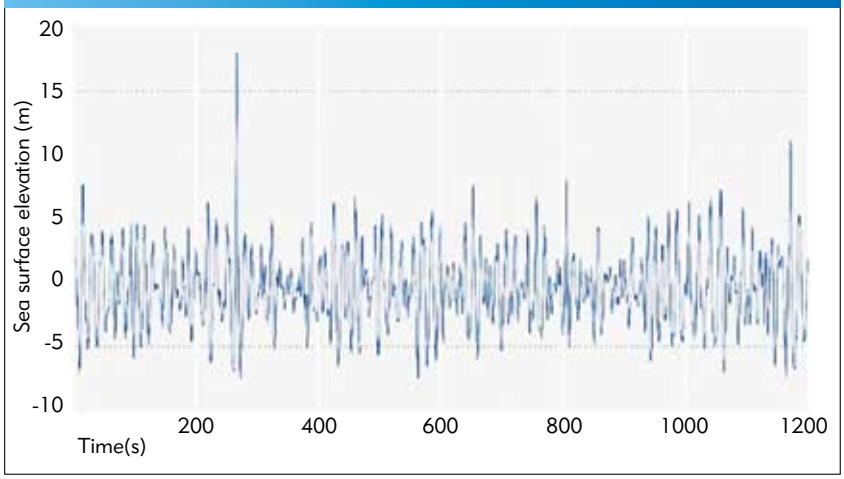
Modulation Instability

Now let's look at the second theory of modulation instability. An example of wave modulation is when the amplitude or energy in waves vary while preserving the same frequency – the effect being a change in the dimensions and energy of the wave. Extreme waves form by 'stealing' energy from surrounding waves. Modulation instability was first described by the British duo of mathematical physicist and mathematician Thomas Brooke Benjamin and civil engineer James E Feir in 1967 and has been actively analysed as a possible explanation for rogue waves using numerical simulations over the last twenty years.

With the mathematics of microworld physics, where particles, like for instance electrons, are treated as waves, the Benjamin-Feir instability investigated using a modified form of the Schroedinger equation – a linear partial differential equation that describes the wave function or state function of a quantum-mechanical system.

First discovered in 1849 by civil engineer John Scott Russell in the Union Canal in Scotland, solitons are solitary waves which propagate in a medium (like water) and which conserve their shape, energy, and velocity when crossing other waves or in collision with objects, that is to say that they do not break. This latter point is very important to vessels. This means

Rogue wave recorded at the Draupner platform in the North Sea, Haver (2000)



that even small movements of the sea surface could ultimately lead to a very large wave – this fits the instances of rogue waves in almost calm seas.

In more recent research, in 2018 Will Cousins of MIT and Themistokles Sapsis of Sydney University developed a predictive algorithm which was recently tested in the 15-metre long water facility in the Marintek laboratory in Trondheim, Norway. Wave packets in the flume focused to rogue waves and the scheme was successful in identifying early stages. Predictions on whether the wave packet would develop into a rogue wave were correct in 96% of the cases. The experiments only involved unidirectional waves as extending the scheme to directional seas would require further work.

"Artificial intelligence can be brought into the mix to quickly identify the smallest clues of a focusing rogue wave more efficiently than humans"

The importance of this work lies in the fact that wave formation can be detected at an early stage and by observing wave packets only. On this foundation, artificial intelligence can be brought into the mix to quickly identify the smallest clues of a focusing rogue wave more efficiently than humans. Indeed, this has been tested successfully on light waves.

What is of real concern to modern day shipping is that Ian Young and Augustin Ribal of the University of Melbourne demonstrated in April this year, after the publication of a 33-year long study, that the height of ordinary sea waves increased significantly between 1985-2018. They concluded that the probable causeis related to increased wind speeds linked to global warming. In the Southern seas they found that the highest waves gained some 30 centimetres. Rogue waves will certainly benefit from this extra energy, a fact that stresses the urgency for the shipping community to have more reliable prediction instruments to protect ships and seafarers in the future. **SN**

Time for an industry go-slow?

Kate Jones hears the call for slow steaming to achieve IMO greenhouse gas targets

Kate Jones

Is it time for shipping to scale down the speed at which its vessels travel? Over 100 signatories to a recent open letter to International Maritime Organization (IMO) member states, ahead of the 74th session of the body's Marine Environment Protection Committee (MEPC 74) and the 5th meeting of its Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 5), think it is.

The letter, dated April 30 and signed by shipping firms and environmental groups, expressed backing for IMO implementation of obligatory regulation of world ship speeds, different across different sizes and types of vessels.

Topic: Speed

Key words: Climate; Greenhouse gas; Environment

Background info: Slow steaming is nothing new, but ships are starting to speed up again as the economy recovers which could negate environmental gains

Some big names were on the letter – Euronav, Star Bulk and Louis Dreyfus Company, for example – along with green organisations for the shipping sector including Transport & Environment and Seas at Risk. The document's signatories favour the setting of maximum average speeds per year for container vessels, plus maximum absolute speeds for the other forms of ship, which take minimum speed obligations into consideration. Such a regulation, the letter stated, should be put in place as soon as possible, with shipowners and operators (including charterers) obliged to comply. The letter asked for backing for the move from all parties at MEPC 74.

Environmental motivation

The signatories' support for slow steaming relates to the IMO's initial strategy, adopted by the 72nd MEPC session in April last year, concerning decreasing greenhouse gas (GHG) emissions from vessels. The plan calls for lowering carbon dioxide (CO_2) emissions per transport work, as an average across global shipping, by a minimum of 40% by 2030; for emissions from shipping to hit a peak as soon as possible; and for decreasing total annual GHG emissions by at least half by 2050, compared with 2008, while pursuing efforts towards totally phasing them out. Those who signed the letter believe that for those targets to be achieved, new operational measures will have to be implemented – for new vessels and the existing fleet – and immediate decreases realised by 2023.

"You just need to take your foot off the gas"

The letter was the brainchild of Faig Abbasov, Transport & Environment shipping policy manager. Discussing the first two IMO strategy objectives noted above, plus a further strategy goal of implementing measures to lower emissions prior to 2023, he said: "Among all of the measures that have been proposed [to achieve the three targets], it seems like a speed limit is the only one that can be implemented immediately, because you don't need to change the ships, you don't need to change the fuelling infrastructure, you don't need to change anything. You just need to take your foot off the gas, essentially, and that in itself will be enough to deliver all three targets."

Transport & Environment had already submitted a regulatory proposal to the IMO concerning the regulation of vessel speed and wanted to gauge the level of support among industry for slow steaming. Mr Abbasov said that with the letter, there is a desire to demonstrate to policy-makers and the IMO Secretariat that "huge support" exists among environmental groups and industry for the need for the measure to be taken seriously by the IMO and for the body to work towards its implementation. Although slow steaming is not the only thing desired, he claimed, it is the only method available immediately to realise the three goals he discussed above and save carbon budget.

Fighting slow steaming's corner

"Slow steaming is immediate," agrees Ioanna Procopiou, chief executive of shipping firm Sea Traders SA and co-ordinator of the letter from the industry side. "It's easily implementable, it is straightforward and it gives us time until new technologies are developed, until new indices are brought in to monitor and until the goals are set for CO_2 emissions per ton mile."

Ms Procopiou added: "Shipowners care very much about the environment and their footprint and I think this is also an effort to raise awareness for that – that we are there and we want to protect and carry the weight of our industry for that going forward."

The letter claimed to offer true-life evidence that lowering ship speeds results in GHG emissions going down. Since the advent of the 2008 financial crisis, slow steaming has been adopted by shipping lines to lessen overcapacity's impacts and, until recently, cut large fuel costs. However, according to the document, a reduced operational speed of the world fleet post-financial crisis caused "dramatic" decreases in GHG emissions.

"Recent studies also suggest that ships are speeding up again as global demand recovers," the document stated. "Should this trend continue, any GHG gains from slow steaming over recent years will disappear." *SN*

Tackling shipping's big-ticket cost

Managing crewing expenditure is one of a ship operator's greatest challenges, finds Carly Fields

Carly Fields

Crewing costs account for a staggering 40%-60% of ship operating expenditure. At that scale, even minor savings can mean the difference between bankruptcy and scraping through to sail another day.

Wilhelmsen Ship Management is one of the world's largest third-party ship managers with a portfolio of more than 450 vessels and 9,200 active seafarers. As a former ship's captain, the company's chief executive and president Carl Schou is extremely passionate about crewing and the challenges and opportunities on the horizon.

Getting the basics right is key. Mr Schou advises proper planning in co-ordination for crew sign-on and sign-offs to help reduce and optimise crewing costs. "When this is done correctly, crew can be signed-on and off at optimised ports and that can minimise crew travel cost."

Topic: Seafarers

Key words: Management; Optimisation; Digitalisation

Background info: Accounting for a significant proportion of ship operating costs, crew management is an area ripe for savings

Mr Schou adds that investing in people is another important factor to ensure stability in crew wages: "When there are insufficient officers in the market, crew cost escalates due to the widening shortage of supply and demand. We strongly advise ship operators invest in cadet programmes and training to build up the pipeline of qualified people in the industry."

And there are easy pitfalls to avoid. For one, having an ownership stake in crewing agents is recommended as maintaining a level of control and influence in crewing agency operations can greatly influence management and quality of crew. "This goes both ways," explains Mr Schou. "Manning agents should also be integrated with crew co-ordination centres and the ship operations department."

Carl Schou believes that there's room for improvement in current seafarer training schemes

Automation evolution

Looking ahead, there are seismic shifts on the horizon in relation to crew management strategies. Automation is coming and crew management operations will not be immune to that evolution. Predictive analytics will be the one to watch here. Operators investing in a good technology platform will find they can optimise crew management strategies – just as long as they are open to change.

Automation onboard will inevitably have an implication for crew skillsets and crew managers will need to "recruit digital natives that have a good balance of data sense making and practical experience", says Mr Schou.

Here he points out a failure of the system, explaining that the existing regulatory framework is lagging in addressing the changes in seafarers' roles and requirements in light of the fast adoption rate of technologies.

Training is also not necessarily fit-for-purpose. Mr Schou says there is "room for improvement" in current training schemes and that a good training scheme should be constantly evaluated on its relevance. Wilhelmsen Ship Management has a dedicated competence development team that takes on the task of evaluating the training matrix to make sure that it meets industry requirements.

One of that team's findings was that learning outcomes can be more easily achieved through the employment of virtual reality technology. "Without physically flying crew all over the world to attend training in selected centres, crew can join the nearest virtual reality centre which is less capital intensive than setting up a simulation centre," says Mr Schou.

Managers also can play a part in cultivating a culture of learning as an ongoing experience and part of the job. Another important factor is to create a platform that enables crew to share their experiences with other crew and creates an environment of shared motivation.

It is not too late for those that have not yet embraced digitalisation, says Mr Schou, who believes that many companies are "at the start of the digitalisation race". That said, Wilhelmsen has seen momentum in take-up of technology. "The message and benefit are clear that digitalisation is the way forward and there is no point of return."

However, Mr Schou stresses that shipping remains a people-centric business and an industry based on personal relationships, long heritage and tradition, and a strong culture of 'my word is my bond'.

"We must not break this unique culture in order to change and digitalise," he says. "Both culture and digital change must work hand-in-hand and shall be our distinct competitive edge if we strike a good balance on this." ***SN***

Lifting the curtain on financing demands

Antonis Alexandropoulos explains how lenders assess and track performance of shipping loans

Antonis Alexandro-poulos

Planning a career in shipping finance? If so, knowledge of financial covenants is a must. Financial analysis is a core part of credit analysis for shipping loans and ultimately has a significant impact on a lender's decision to extend a loan. It has also proven to be a useful tool to successfully manage the loan thereafter.

Hence it is essential for individuals who either currently or plan to work in shipping banks, private equity firms, credit funds or finance departments of shipping companies to be familiar with such ratio analysis. Indeed, the latter forms part of the day-to-day job and questions around these ratios are frequently asked at job interviews.

So, why are financial ratios so important to lenders in shipping? Lenders estimate these ratios as part of their financial analysis on a borrower or guarantor when evaluating a loan request. Such analysis is mainly applicable to large companies, organised under corporate structures and issuing audited financial statements with details of all group debt obligations. For family companies or special purpose vehicles the applicability of such ratios would be questionable.

Thereafter, as part of the loan agreement, lenders would use the ratios as financial covenants to monitor the performance of the borrower and/or guarantor at corporate level during the loan period. The purpose of this is to ensure that the borrower/guarantor on whom the covenants are imposed maintains a financial condition and performance acceptable to the lenders, as was the case at the time the loan was initially granted. This helps lenders to mitigate the risk of borrower's inability to repay its debt.

The financial covenants are in the form of a benchmark on the ratios and are tested on a quarterly, semi-annual or annual basis. The relevant calculations are presented on the 'Compliance Certificate', which is provided by the borrower together with the financial statements. Should a test fail this would imply a technical event of default under the loan agreement and the lenders would require the company to cure the covenant breach within the documented timeframe. Otherwise, the borrower's inability to meet the covenants would trigger a restructuring of the facility.

Ratio rundown

Below are the most important financial ratios used by financial institutions as part of their credit analysis for shipping corporates.

Security Cover or Loan to Value (LTV) ratio

LTV reflects the total amount of group debt outstanding plus any other related obligations secured by the vessels (such as mark to market positions on derivative trades) divided by the total market value of the fleet at the time. An LTV ratio below 75% (Security Cover 133%) would be considered acceptable, especially in periods of historically low values.

Debt to Equity ratio

This is calculated by dividing total liabilities by total equity. Usually, lenders require the value of the equity to be adjusted for the market values of the vessels. A lower debt to equity ratio implies a financially more stable business and lenders prefer the ratio to be maintained below 1.

Gearing or Debt ratio

This measures a firm's total liabilities as a percentage of its total assets (market adjusted). In the shipping industry a ratio below 75% is often considered acceptable. The majority of the assets in shipping companies reflect the value of their vessels, and liabilities refer to the (long term) debt on the vessels and some short term/working capital financing outstanding. So, it is of similar concept to the LTV ratio.

Interest Coverage ratio

This measures a company's ability to make interest payments on its debt in a timely manner. It is calculated by dividing the earnings before interest, tax, depreciation and amortization (EBITDA) by the interest expenses. A typical number set as benchmark for lenders would be between 3 and 5. In other words, lenders would require that a company makes at least 3 times the amount of their current interest payments.

Debt Service Coverage ratio

This measures a company's ability to service its current debts by dividing its annual net operating income by its annual debt payments (usually on a trailing 12-month basis). Lenders require this ratio to be above 1, which indicates that the vessels generate enough income to comfortably cover loan principal and interest payments.

Current ratio

This is calculated by dividing current assets by current liabilities and measures a firm's ability to pay off its short-term liabilities with its current assets. Lenders prefer a current ratio of at least 1, so that all current liabilities would be covered by the current assets. The latter also implies positive working capital.

Knowledge of these financial ratios is not only advised for those involved or interested in the shipping finance sector; there are benefits to all in developing a deeper understanding of the demands of shipping lenders in today's challenging market. **SN**

Antonios Alexandropoulos FICS is a committee member for the London & South East Branch and has worked in several major shipping and corporate banks in Europe since 2003.

Onboard life through a charterer's eyes

Jess Warren shares her experience of joining a passage on a Stolt chemical tanker

On a mild, still evening in Port Botany, Australia stood the chemical tanker Stolt Satsuki, all fast at Bulk Liquids Berth Two preparing to load valuable cargo … two six-foot blondes.

The opportunity to visit arose as a joint venture between my employer and Stolt Tankers with whom we charter vessels, and served as both work experience and Institute student development. A Stolt employee and I, both studying for Institute examinations, would spend four days aboard the vessel as it sailed from Port Botany to Melbourne.

From a charterer's perspective I was most interested to see the operational aspects of the voyage, particularly at the discharge port as our base oil cargo was on board the vessel. From a student's perspective it was exciting seeing the theory learned in Ship Operations and Management, Tanker Chartering and Shipping Business put into practice.

Once on board and with formalities completed with the Master and Customs, we headed straight for the cargo control room for the pre-discharge meeting. My eye was immediately drawn to the controls of the Inert Gas System and Ballast Water Treatment System as well as the computer screens and control panel which displayed all tank levels and cargoes.

While purely observing the meeting, the charterer in me was ensuring that our tank samples were underway, noting the minimum and maximum pumping rates, discharge sequence for cargoes and availability of discharge lines provided by the terminal. I was impressed by the level of competence and professionalism despite English not being the first language for many of the parties. All the safety checks and discharge operations were completed in a fast and efficient manner. From a charterer's perspective this was pleasing, as we aim to discharge our cargoes within the laytime agreed and avoid demurrage.

Life on board

Over the following days we were able to experience life on the vessel and interact with the crew and officers, who were Filipino and Chinese. Breakfast was at 0700 daily and we headed downstairs to the Officers' Mess where we were politely guided to our seats, situated at the end of the table. I didn't think much of this seating arrangement at first, however as the officers came and took their seats at random intervals it become evident that the hierarchical nature onboard a ship extended through to where officers sat at the breakfast table.

Some of the most memorable moments of my time on board were experienced on the bridge. The Third Officer introduced us to the modern ECDIS equipment, radios, compass, steering gear control panel, echo sounder and so on. Seeing the manual deck log book and celestial observation log was an insightful reminder of the manual data processing, which is still practiced today.

Jess (right) and Michelle on the deck of *Stolt Satsuki*

Experiencing the operation of the pilot boarding vessel at the heads of Port Phillip Bay was like a scene out of a James Bond film. Faced with a strong neap tide, 35 knot winds and rough seas the pilot boat approached the starboard side and headed around the stern. While alongside, the pilot clambered up the side of the vessel, apparently effortlessly in his wet weather gear. Once on the bridge he set up equipment, checked communications and gave advice to the Master. Just when I thought the experience couldn't get any better, the pilot began to take off his wet weather gear and underneath was in a suit and tie. Had my jaw not been hitting the floor, I would have asked if he preferred his martinis shaken, but not stirred!

Say 'cheese'

Another memorable moment was the tour of the engine room with the chief engineer. It was amazing to see all the boilers, generators, water treatment systems, pumps and steering gear flat. I was in awe of the sheer scale, which spanned at least five storeys in height. Mid-way through the tour I felt like a celebrity, as the officers took our photo. I later learnt that we were the first women they'd seen in the engine room.

These were only a handful of learning experiences I took from the opportunity. As both a professional in the maritime industry and as a student with Institute, this was a unique and privileged experience for which I am very grateful. Overall, the experience facilitated the development of my skills and understanding of vessel operations as a shore-based professional. I would encourage all companies in the maritime industry to show such leadership as Stolt Tankers in providing such opportunities for students and for professional development. **SN**

Jess Warren is supply chain co-ordinator at Quality Logistic Services Australia and currently taking her professional Institute exams through the Australia/New Zealand Branch.

Transform a life with Sailors' Society

Sailors' Society is in 47 global ports and 23 countries transforming the lives of the world's 1.5 million seafarers and their families through welfare support, education and relief of poverty and distress.

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To join us on our journey, contact Jenny at jboland@sailors-society.org or on +44 (0)2380 515 950 to find out what you can do today.

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Making sure the message gets through

ITIC's Andrew Jamieson explains why brokers must comply with a new LMAA arbitration notice clause

Andrew Jamieson

Shipbrokers may be asked to include in fixtures a new arbitration notice clause published by the LMAA (London Maritime Arbitrators Association) which allows the parties to designate email addresses for the effective service of notices and communications in relation to arbitration proceedings.

Publication of the LMAA Arbitration Notice Clause follows decisions in English high court cases regarding the validity of notices commencing arbitration. In Glencore Agriculture BV v Conqueror Holdings Limited, for example, the court held that a notice of arbitration sent to the individual email address of 'a relatively junior employee' had not been effectively served.

ITIC has dealt with a number of situations where brokers have failed to pass on documentation relating to arbitrations. These are often the result of a message appointing an arbitrator being missed.

In a recent case, owners began arbitration in London, but the brokers failed to pass the notice on to the charterers. Not surprisingly, the charterers failed to nominate an arbitrator. The owners then sent a notice nominating their chosen arbitrator as sole arbitrator. This message was spotted and the brokers realised their error. Fortunately, the parties agreed to the charterers appointing an arbitrator and, while the owners were annoyed at the relatively short delay which ensued, the brokers were not on this occasion presented with a claim. Not all failures have been detected so quickly, however.

In another claim, brokers passed on a message from owners requesting the charterers to agree to the appointment of a single arbitrator in accordance with the charter party arbitration clause. The charterers did not respond, and the owners sent a message to the honorary secretary of the LMAA requesting the appointment of an arbitrator. This message was copied to the brokers, as was all subsequent correspondence between the appointed arbitrator and the owners' lawyers, which ultimately included the owners' claim submissions.

The charterers did not provide any defence submissions and the owners asked the arbitrator to make an award in their favour. It was at this stage that it was discovered that the brokers had not understood that they were still meant to forward messages to the charterers. They had assumed that, since they were only in copy on the messages which were addressed to the arbitrator, they were not required to pass them on.

Severe consequences

In many cases, the damage caused by the broker's inactivity will be restricted to wasted legal and tribunal costs. There can however be more severe consequences. If the arbitration has not been effectively commenced, then time does not stop running for the purpose of limitation and contractual time-bars. The case could become time-barred before the claimant can restart the proceedings.

Credit: Twitter Trends 2019, CC BY 2.0

The LMAA Arbitration Notice Clause, the text of which can be viewed on the LMAA website at: www.lmaa.london, has been designed to avoid these types of issues. It provides that notices and communications in relation to arbitration proceedings shall be treated as effectively served if sent by email to the respective addresses provided for in the clause.

The LMAA recommends that at least one individual, together with their individual email address, is named for service purposes, but adds that a general email address may also be included or used in the alternative. A potential pitfall will occur if the named individual leaves a company's employment. This will be especially relevant for long-term period business.

The clause permits parties to change their nominated individuals and/or addresses and it is important that parties keep these nominations under review. Any notice and communication sent by email pursuant to the clause shall be deemed to have been served, and become effective, from the date and time the email was sent. There could be severe consequences if the addresses are not monitored and if messages are not responded to within the time permitted.

It appears that the clause has been drafted on the basis that the parties will insert their own addresses. In some circumstances, however, shipbrokers may be asked to insert their own communication details. While the clause can work perfectly well on that basis, shipbrokers do need to remember that they could face significant claims if they do not deal with such messages.

The threat of messages being overlooked and therefore not being actioned has led to some shipbrokers including notices in recaps nominating specific addresses for post-fixture messages. This has been prevalent in the tanker market in which demurrage claims are subject to relatively short time-bars. If the LMAA Arbitration Notice Clause is inserted in the charter party, these broker wordings might need amending slightly to ensure that there is no confusion as to where arbitration notices should be sent. **SN**

Andrew Jamieson is claims director at the International Transport Intermediaries Club (ITIC).

Legal Eagles...

Do you have a burning legal question for the HFW *Shipping Network* team? Email legaleagles@ics.org.uk for them to answer your question in the next issue of the *Shipping Network*. Questions should be of a general nature and not specific to a particular live issue.

HFW's crack team of specialist shipping lawyers answer your legal questions

Guy Main

Jenny Salmon

Jonathan Goulding

Q I have read recent reports of autonomous vessels being tested in places such as Finland. What regulations apply to these vessels?

A The existing regulatory framework for ships is based on international conventions which are then incorporated into national law by each State signatory. None of the international conventions, however, were drafted with Maritime Autonomous Surface Ships (MASS) in mind – MASS being the official term adopted by the Maritime Safety Committee (MSC) of the International Maritime Organization (IMO).

In July 2017, the MSC approved a scoping paper to address how existing IMO regulatory instruments can be applied to the safe, secure and environmentally sound operation of MASS. This scoping exercise is due to be completed in May 2020, following which work is likely to start on revising some of the regulatory instruments, although the majority of the existing international regulatory framework is likely to remain intact.

With MASS technology developing faster than the international regulations and conventions, it is difficult to predict what types of MASS will be operating in the next 10 years or so. The short-term focus, therefore, has been on national (domestic) regulations and the operation of MASS within national rather than international waters, where the international conventions apply.

Indeed, it is the close collaboration between industry and regulators that has enabled various MASS demonstrations to take place successfully, such as that by Finferries and Rolls-Royce of what is claimed to be the world's first autonomous ferry demonstration, and auto-docking, in the Turku archipelago.

The *Yara Birkeland*, the world's first fully electric and autonomous container ship, is another example of collaboration between industry and national regulators. This vessel is not a prototype and will be expected to carry up to 30,000 containers per year on specific routes within Norwegian territorial waters and will comply with Norwegian law and regulations. The vessel is expected to start testing in 2020 and is expected to receive approval for unmanned operations in 2022.

Credit: Kalmar

The *Yara Birkeland*, the world's first fully electric and autonomous container ship, is expected to start testing in 2020

Global moves

But it is not just the Scandinavian countries which are looking at regulating MASS. In 2017 Maritime UK launched an industry code of practice which was updated at the end of 2018. The code set initial standards and best practice for those who design, build, manufacture, own, operate and control MASS of less than 24 metres in length. The code's intent is to demonstrate equivalence with existing legislation, such as the Convention on the International Regulations for Preventing Collisions at Sea 1972 (COLREGs), and to provide a goal-based framework for the MASS industry to develop. Similar exercises are being carried out in other countries.

In October 2018 the UK Maritime & Coastguard Agency and two other British agencies were awarded a UK Government grant to pioneer new ways of regulating MASS. As well as lessons learned from operating MASS, the IMO is encouraging states to submit this information so that it can be assimilated and form part of the IMO regulatory scoping exercise going forward.

It should be remembered, however, that MASS are not intended to fully replace conventional vessels, and perhaps the biggest challenge the maritime industry faces in the immediate future will be to ensure that MASS and conventional vessels can operate safely within the same waters, particularly in busy ports and harbours. This will require close co-operation between port operators and MASS users, including supporting the use of autonomous technology across stakeholders to promote shared learning, and to address the challenges related to using autonomous technology. While regulatory preparedness might be a pressing concern, regulations should not become a barrier to innovation. This is why the UK and a number of other countries are adopting goal-based regulatory frameworks to ensure compliance with the existing regulatory framework where possible. ***SN***

While every care has been taken to ensure the accuracy of this information at the time of publication, the information is intended as guidance only. It should not be considered as legal advice.

I am a charterer and I have a claim against the shipowners under the charterparty. The charterparty is subject to English Law, and disputes are to be referred to arbitration in London. How long do I have to commence arbitration?

The general rule under English law is that the parties have six years to bring a claim for breach of a contract, such as a charterparty. The six-year period starts to run from the date of the breach (e.g. from the date hire became due but was not paid, or any other wrongful deduction was made). The claiming party must have commenced arbitration or issued Court proceedings as required by the charterparty within that six-year period. If they do not, then their claim is time barred. It is therefore very important to identify and diarise any time bars as soon as you become aware of a possible dispute.

English law allows the parties to a contract to agree a longer or shorter period than six years, so the first thing you should do is check the charterparty to see if there is a clause specifying how long the parties have to bring any claims. Beware that the charterparty might specify different time bars or claims procedures for different types of claim.

If the time bar is close to expiry, you might still be able to agree an extension of the limitation period with the shipowners after the dispute has arisen, if you and the shipowners would like extra time to negotiate a commercial settlement. Shipowners may be keen on this if they have any counterclaims which may also shortly become time barred, or simply to avoid arbitration proceedings being commenced against them. There may be a commercial relationship to protect, which discourages the parties from commencing arbitration proceedings if at all possible.

Any limitation period extension agreement should be carefully recorded in writing, and you should make sure that the wording of the agreed extension of time is widely drafted to cover all possible claims you may want to bring against the shipowners. You should also note in your diary when the agreed extension will expire, with a reminder a few weeks in advance so that you have enough time to negotiate another extension (or commence arbitration proceedings) if required.

If you are not sure exactly when the breach occurred then, to avoid missing the time bar, it is advisable to assume the earliest possible date based on the facts of your claim.

Once you have identified when your claim will become time barred, you will need to make sure that you commence arbitration in accordance with any procedural requirements set out in the charterparty. Failure to do so may invalidate the arbitration proceedings you have commenced, and it may be too late to correct any errors if the time bar has since expired.

Serving notice

To make sure that you have commenced arbitration in time, in addition to appointing an arbitrator you must also make sure that notice of the appointment is validly served on the shipowners before the time bar expires. You must also invite them to appoint their own arbitrator or to agree your choice as sole arbitrator, depending on the charterparty terms.

If you do not usually deal with the shipowners directly (but, for example, communicate through brokers or with the shipowners' P&I Club), you should check whether these agents are authorised to accept service of your notice. If in any doubt, you should serve the notice in hard copy on the shipowners directly at any address for notices set out in the charterparty, and also at any registered office address, if different. It is usually easiest to appoint a local process server to do this for you. The London Maritime Arbitrators' Association has recently introduced an LMAA Notice of Arbitration Clause which allows for service of notices (including notices of commencement of arbitration) by email to designated email addresses. You may wish to consider incorporating this in future charterparties to make serving notice of arbitration proceedings cheaper and quicker to achieve. **SN**

While every care has been taken to ensure the accuracy of this information at the time of publication, the information is intended as guidance only. It should not be considered as legal advice. The articles were written by Guy Main, senior manager (partner equivalent); Jenny Salmon, senior associate; and associate Jonathan Goulding from HFW, a sector focused law firm specialising in shipping, aviation, commodities, construction, energy and insurance. Guy is in the shipping department in HFW's London office and is a Fellow of the Institute. Before joining HFW he spent 18 years as a shipbroker.

Uncharted waters for dry bulk

The dry bulk market is shrouded in uncertainty, finds Kate Jones

Kate Jones

With the Baltic Dry Index having almost halved in value since the start of this year (as of April), what is the current outlook for the dry bulk shipping sector?

Dry bulk shipping company Pacific Basin, in a trading update for Q1 2019, claimed that the dry bulk freight market began this year with a whimper, rather than a bang.

"The dry bulk freight market in 2019 has started weaker than the last two years, with a more pronounced Chinese New Year dip compounded by the US-China trade conflict, Chinese restrictions on coal imports and iron ore infrastructure-disruptions in Brazil," it said. "This led to weak spot market rates in the first quarter overall."

However, Malaysian Bulk Carriers Berhad (MBC Group) noted that demand for dry bulk shipping is expected to improve. The MBC Group's annual report for 2018 stated: "In 2019, the Vale dam accident at Brumadinho in the state of Minas Gerais in Brazil caused a significant disruption in the dry bulk market and compounded the fall in the dry bulk freight rates that started in the fourth quarter of 2018. Concerns of weakening commodity demand in China and global trade uncertainties may impact growth. Nevertheless, the dry bulk shipping demand is projected to grow by 2.5% in 2019, mainly driven by agricultural products and minor bulk commodities."

Yet, the firm continues: "The global dry bulk fleet is projected to grow at 2.8% in 2019, but there is increasing expectation that ship demolition may increase, as some shipowners may be inclined to scrap vessels instead of incurring additional costs for special surveys, installation of ballast water treatment systems and scrubbers to meet the [International Maritime Organization's 0.5% mass-by-mass limit, from January 1, 2020, for sulphur in fuel oil used on vessels operating outside designated emission control zones (IMO 2020)] sulphur regulations."

Digging deeper

Normal seasonal weakness at the beginning of this year was further undermined by the trade war between the US and China and its impact, particularly on US grain and soybean exports which typically drive the Atlantic market, according to Pacific Basin.

"As China avoided imports from the US, US export trades shifted in favour of non-seaborne exports to neighbouring Canada and Mexico as well as shorter-haul non-Asian destinations," the dry bulk shipping firm said. "Total US grain-export volumes in January declined by 1% year-on-year, but seaborne exports (excluding exports to Canada and Mexico) declined by 9%."

Pacific Basin continues: "The market in the Pacific was affected by Chinese restrictions on coal imports and new Chinese customs-clearance practices impacting trades such as coal from Australia and canola oil seeds from Canada. Weather-related infrastructure-disruptions also dented Australian and Indonesian dry bulk exports. However, the handysize and supramax markets were supported by Chinese imports of seven key minor bulk commodities, including grain, growing by 7% in January and February compared to the same period last year, or by 18% excluding grain.

"While the minor bulk trades are showing continued growth, Chinese imports of iron ore and coal declined 3% in the first two months of the year, weakening demand in the capesize segment. Sentiment in the market for these large bulk carriers has also been affected by the tragic dam failure in Brazil in January and the disruptions this has caused to long-haul iron ore-export volumes."

According to Pacific Basin, the world growth outlook has weakened since the middle of last year, but the International Monetary Fund's (IMF) economic growth forecast for this year of 3.3% (at the time of writing), though gradually lowered

Credit: Joegoauk Goa, CC BY-SA 2.0

Seasonal weakness for bulk carriers has been compounded by the trade war

Tanker talk

The leader of the biggest oil tanker shipping firm in the world said he is "excited" about 2019 in a video from Norwegian financial services company DNB. In the clip, published on YouTube, which examines the outlook for the tanker market, Robert Hvide Macleod, chief executive of Frontline, said he felt that this year had begun well and that investors have good reasons to be optimistic about the last year of the 2010s.

"I think we've been off to a very good start to the year," he commented. "It's much more balanced than it was in 2018. There was fleet growth at the start of the year. That has been absorbed, and overall, I think it's exciting. We're coming into Q2 now, which I think will be the weakest of the quarters, but so far, the year has seen a change in market in Q1 where the market came up in February, which basically never happens. This shows strength and it shows that US exports are what are going to change the market going forward."

"Looking ahead, while there are currently no definitive indications of a turnaround in the chemical tanker market, we do expect a strengthening market as the supply of new tonnage into our segment slows," added chief executive of Stolt-Nielsen, Niels G. Stolt-Nielsen, commenting on his company's results for the first quarter of 2019. *SN*

The tanker market is showing underlying strength

from 3.9% in October last year, still represents a healthy growth level which keeps boding well for minor bulk tonne-mile demand, which is anticipated to increase by 4.3% this year. The IMF anticipates the world economy to slowly strengthen in the second half of the year and into next year, partly due to Chinese economic stimulus and continued loose US monetary policy.

"The US-China trade conflict has disrupted markets and affected sentiment," says Pacific Basin. "However, a resolution between the two countries could provide the dry bulk market with a boost, while a protracted trade conflict could further undermine global GDP growth and consequently overall trade and dry bulk demand.

"Preparations for the IMO 2020 sulphur limit, that takes effect on January 1, 2020, should lead to increased supply-disruptions in the second half of this year, which could compound the dry bulk market strength that typically builds in the third and fourth quarters. Fleet supply is furthermore expected to be kept in check as shipowners in our segments refrain from ordering new ships." Clarksons Research estimates combined handysize and supramax net capacity growth of 1.9% for 2019 and 0.6% for 2020.

Boxed up

The outlook might be brightening for container ships

Although the outlook for container shipping is cloudy, a better future remains probable: that's the message from maritime research consultancy Drewry. The organisation's Simon Heaney, senior manager for container research, claims that although the box sector is having to contend with challenges, the market is on the up.

"The degree of uncertainty is probably the highest it has been in a decade," he notes. "There are a lot of headwinds facing the industry right now, with IMO 2020 [the International Maritime Organization's 0.5% mass-by-mass limit, from January 1, 2020, for sulphur in fuel oil used on vessels operating outside designated emission control zones] at the forefront, but there is also a danger that those fears become overstated and that commentators unnecessarily talk down the market when the truth is that it is moving in a positive direction. The industry is resilient and has shown that it can adapt quickly at times of stress, and we expect it to come out the other side in a stronger position."

Drewry notes that the box shipping sector is facing this exceptionally high level of uncertainty, ranging from the extra cost connected to IMO 2020, and how much carriers will recover from shippers, to the chance of a trade recession and unknown future shipowner engagement in big shipbuilding initiatives. However, the consultancy expects the container shipping sector to be near equilibrium by 2023. *SN*

Choppy territory

"All in all, it looks as though the most probable scenario is that 2019 won't be a stellar year for the dry bulk sector," Thomas Chasapis, research analyst at Allied Shipbroking, noted in April. "The 'hope' for the rest of year is that the market will succeed in some sort of rebalancing, without causing any further derailment from the overall recovery path set by 2017 and the first half of 2018."

In his firm's report for 2018, MBC Group chairman Dato' Capt Ahmad Sufian @ Qurnain bin Abdul Rashid foresees many new challenges and opportunities being thrown up by the shipping sector, as well as "the global environment", moving forward in both this year and upcoming years.

"While global seaborne trade is projected to continue to grow in the coming year, ongoing global trade tension and increasingly bearish commodity demand sentiments may affect growth rate," he noted. "This, coupled with potential trade disruptions of dry bulk commodities such as coal, iron ore and grains, pose demand side risks and may result in higher freight volatilities."

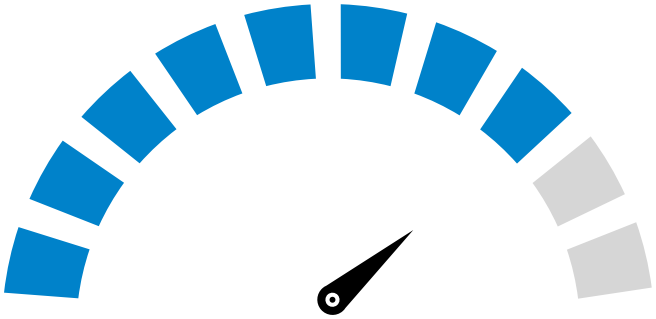
It's clearly an uncertain time for shipping – and within that, an uncertain time for the dry bulk field. *SN*

Oil facts...

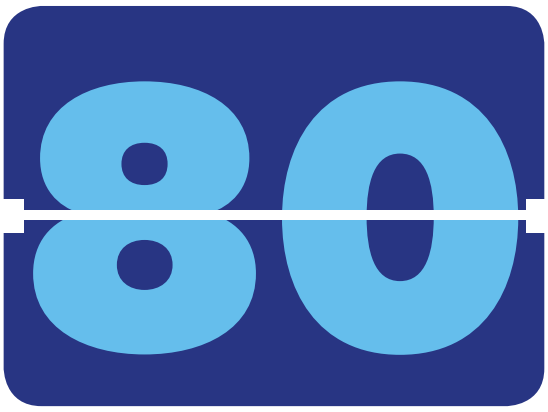
Weird and wonderful facts about one of the shipping industry's staple commodities. This month we take a closer look at oil.

petra oleum

The word **"petroleum"** literally translates as **"rock oil."** It stems from the Greek word **"petra,"** meaning rock, and the Latin word **"oleum,"** meaning oil



Just under **80% of the world's oil reserves** are controlled by **OPEC** – the Organisation of Petroleum Exporting Countries – and most are located in the Middle East. Other non-OPEC oil producers include the UK, Russia, US and China



There are approximately **80 years** of confirmed oil stocks remaining

One barrel of oil accounts for about **19.15 gallons** of gasoline, **9.21 gallons** of diesel, **3.82 gallons** of jet fuel, **1.75 gallons** of heating oil and about **7.3 gallons** for other petrochemical products like tar, asphalt and bitumen

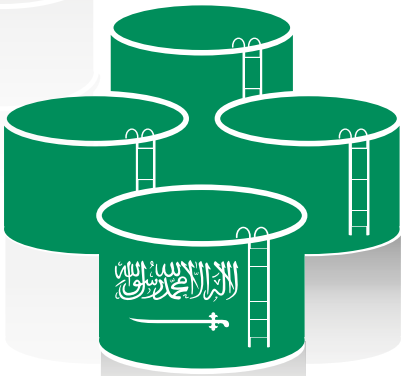
July 11, 2008
Oil prices hit a record high of **$147.27 a barrel** before settling at $145.08 at the end of the day

The world uses over

36 billion barrels

of oil per year

Oil is measured in barrels, with one barrel being equal to **159 litres (42 US gallons)** – a legacy from early 19th century storage of oil in wooden barrels of a standard size



Saudi Arabia holds the world's largest crude oil reserves at around **26%**

Without oil most of the household goods that we take for granted **would not exist**

The US has over **200,000 miles** of oil pipelines within its borders

European professionals are the highest paid in oil and gas with salaries of over **$109,000** per year

The United States is the top oil producer and consumer of oil with an output of over **14 million barrels per day**; American oil production makes up approximately one seventh of the world's total oil production

The US economy benefits from the majority of oil trades being conducted in US dollars, though this is **progressively changing** with OPEC and other producers beginning to use euros, yen and sterling

Sources: dare-energy.com, fossil-fuel.co.uk, investinganswers.com, edition.cnn.com

Academics welcomed as Honorary Fellows

Shipping Network presents the latest shipping professionals to join under Bye Law 8

TWO academics have been granted the Institute's highest honour, Honorary Fellowship, under its Bye Law 8 rule.

Arthur Hsieh and Chih-Ching Chang have shown a commitment to the Institute by providing long-term service and support, with the two men anticipated to keep giving such support in the future.

In a letter nominating them for the title, Robert Hill, the Institute's head of membership, said that Dr Hsieh and Prof. Chang were "instrumental" in setting up the Professional Shipping and Shipbroking Programme, which was co-organised by the Institute and Taiwan International Ports Corporation in 2014, and have remained course directors and programme leaders for the course.

"By establishing and ensuring the continued success of this programme, they have made an exceptional contribution to the shipping industry in Taiwan and … promoting the Institute in this region," said Mr Hill.

Both Dr Hsieh and Prof. Chang possess considerable influence and experience in the Taiwanese shipping community.

Prof. Chang, who holds a Doctor of Philosophy qualification from the University of Bristol in the UK, is a Professor at the National Taiwan Ocean University (NTOU) and director general of the Chinese Shipping Research Institute in Taiwan.

Dr Hsieh, who holds a Doctor of Philosophy qualification from NTOU, is president of Sincere Steamship Corporation.

In the letter, Mr Hill said that both men have undoubtedly made an exceptional contribution to both the Institute and the shipping sector. *SN*

Elected to Membership

We congratulate and welcome the following who were recently elected to membership:

Newly Elected Members

Georgi Georgiev	Bulgaria
Louis-Pierre Trottier	Canada
Vladimir Tchoub	Canada
George Onisiforou	Cyprus
Rafaella Yiangou	Cyprus
Socrates Pilavakis	Cyprus
Stelios Stylianou	Cyprus
Thomas Michael Mortensen	Cyprus
Juan Jose Garcia Navarro	Denmark
Sayyid Mtsumi	Denmark
Evanthia Kopanou	Germany
Maxwell Mamonkose	Ghana
Christabel Ewedji	Ghana
Ntagouo Chendjou Prisca	Ghana
Amir Mehdi Khoshoie	Greece
Dimitra Bazioti	Greece
Aikaterini Tsimizili	Greece
Dimitrios Pananidis	Greece
Katerina Zachariou	Greece
Dimitrios Tampouras	Greece
Dimitrios Parrisiadis	Greece
Christos Mitrogiannis	Greece
Evangelos S Kargakos	Greece
Effrosyni Alvanou	Greece
Michalis Karadimitriou	Greece
Fanis Matsopoulos	Greece
Ornela Piriu	Greece
Dionysios Vrachatis	Greece
Anna Konstantinou	Greece
Michail Georgiou	Greece
Vasiliki Petrou	Greece
Eleni Anna Siskou	Greece
Laura Christina Lungu	Greece
Pinelopi Georgia Plessa	Greece
Panagiotis Xenakis	Greece
Dionysios Tsilioris	Greece
Katerina Stefani	Greece
Panos Petrolekas	Greece
Evangelos F Darousos	Greece
Konstantina Nikolaou	Greece
Maria Nikolaou	Greece
Dionysios-Emmanouil Diamantopoulos	Greece
George Nicodemos	Greece
Ioanna Sarafi	Greece
Irina Veretennikova	Greece
Mary Asuquo	Hong Kong
Shyam Sasikumar Nair	India
Suraj Padhy	India
Girish Narwani	India
Teena Joey	India
Andre Schwendner	India
Ajay Deshmukh	India
Christopher G Fowler	India
Mohammed Nalisi Hussein	Kenya
Amit Shakya	Kenya
Artur Dudnik	Mauritius
Felix Van Aalst	New Zealand
Vasiliki Nikoglou	Russian Federation
James Atkinson	Singapore
Dan Chua	Singapore
Gnanadesikan Rajavikraman	Singapore
Karine Serrado De Almeida	Singapore
Sheryl Lee Yan Jie	Singapore
Xiaohui Huang	Singapore
Afzal Machingal	Singapore
Jonathan Heng Jian Shun	Singapore
Mawanane Hewa Supun Tharaka	Singapore
Ameerah Bibi Karrimbuccus	Spain
Natalia Peioglo	Spain
H M S N Wasana Herath	Sri Lanka
Daniel Kwakye	Sri Lanka
Carlos Gomez Pinero	Switzerland
Tatyana Benzar	Ukraine
Carlos Gallego Llobell	Ukraine
Igor Subachov	Ukraine
Oleksiy Petrenko	Ukraine
Charles Dixey	Ukraine
Christine Abeysundara	United Arab Emirates
Eduardo Jose Rangel Varela	United Arab Emirates
Rajesh Murugesan	United Arab Emirates
Zoe Wildsmith	United Kingdom
Hannah Simpson	United Kingdom
James Hamilton	United Kingdom
Thomas Kealy	United Kingdom
Harry Henley	United Kingdom
Annabel Davies	United Kingdom
Marius Toft	United Kingdom
Andrea Pavlou	United Kingdom
Bruce Fairweather	United Kingdom
Harry Aristidoglou	United Kingdom
Senthil Palanivel	United Kingdom
Hariharan VK	United Kingdom
Brian Newman	United States

PROMOTED TO FELLOWSHIP

Tasong Forqwan Quinta Azitabong	Cameroon
Frida Bume Etule Epse Ekalle	Cameroon
Eliza Wanda Nowicka	Denmark
Carina Kulke	Germany
Nathaniel Kojo Nti	Ghana
Ka Ho Chan	Hong Kong
Dheeraj Verma	Hong Kong
Sanjeev Verma	Hong Kong
Wellington Koo	Hong Kong
Abhijeet Vasant Kale	India
Sreejith N T	India
Mary O'Reilly	Ireland
Oketch Cornel Awindah	Kenya
Albert Karisa Lucas	Kenya
Tumaini Namoya	Kenya
Anoop Jayaraj	Singapore
Sundar Ramakrishnan	Singapore
Anuradha Sooriyaarachchi	Sri Lanka
Rashid Isa Rishi Alheddi	United Arab Emirates
Anup T Antony	United Arab Emirates
Deepak Tiwari	United Arab Emirates
Colin Bansor	United Kingdom
Edward P J Molyneux	United Kingdom
Bello Tukur	United Kingdom
Elena Sukhova	United Kingdom
Antonios Alexandropoulos	United Kingdom
Pankhuri Poddar	United Kingdom
Richard Butler	United Kingdom

RE-ELECTED TO MEMBERSHIP

Peter Mitkov	Bulgaria
Pavlina Kourtzas	Greece
Sanju Manayani	United Arab Emirates
Arun John Thomas	United Arab Emirates
Lalani Liyana Arachchige	United Arab Emirates

RE-ELECTED TO FELLOWSHIP

Asoka Ranjith Munidasa	Australia

ELECTED TO HONORARY FELLOWSHIP

Cheng-Hung Hsieh (Arthur Hsieh)	Taiwan
Chih-Ching Chang	Taiwan

Why shipping matters to our children

Institute initiative aims to explain the importance of shipping to schools

The Institute has ambitious plans for its 'Why Shipping Matters: An Introduction for Schools' programme.

Established through many hours of volunteered time, and two grants from the Educational Trust Fund and WISTA UK, the Institute created the programme to provide insight into shipping for primary school aged children, specifically those in Key Stage 2 (7-11 year olds). It was designed with a dual purpose: firstly, to begin to build an interest in the shipping industry at an early age and secondly to grow pupils' understanding of its impact on the UK, and the region those young people live in.

Future development of the project is divided into four key ambitions. Firstly, the Institute aims to expand to new regions in the UK. Secondly, it wants to further develop Key Stage 2 to cover 20 lessons, allowing teachers multiple opportunities to 'dip' into the maritime world throughout the academic year. Thirdly, there is a desire to expand into secondary schools through Key Stage 3 (11-14 year olds). Finally, the Institute is looking to internationalise the materials to support schools in multiple countries as part of the UN development goals.

The UK's parliamentary under-secretary of State at the Department for Transport and assistant government whip Nusrat Ghani has publicly supported the programme. In a letter to member of parliament Jim Fitzpatrick, she said that the

The maritime box contains supporting materials for teachers

School of Shipping spreads its wings

Having opened its doors for the first time in September last year, the Institute-run London School of Shipping is adding to its courses in 2019.

The educational provider, which offers evening classes for those seeking to gain Institute accreditation, also boasts a wide range of short professional development courses in commercial shipping disciplines, with a number of programmes available this year. The school describes the face-to-face courses as "ideal for new starters or those working in the business looking to further their knowledge in specific industry sectors".

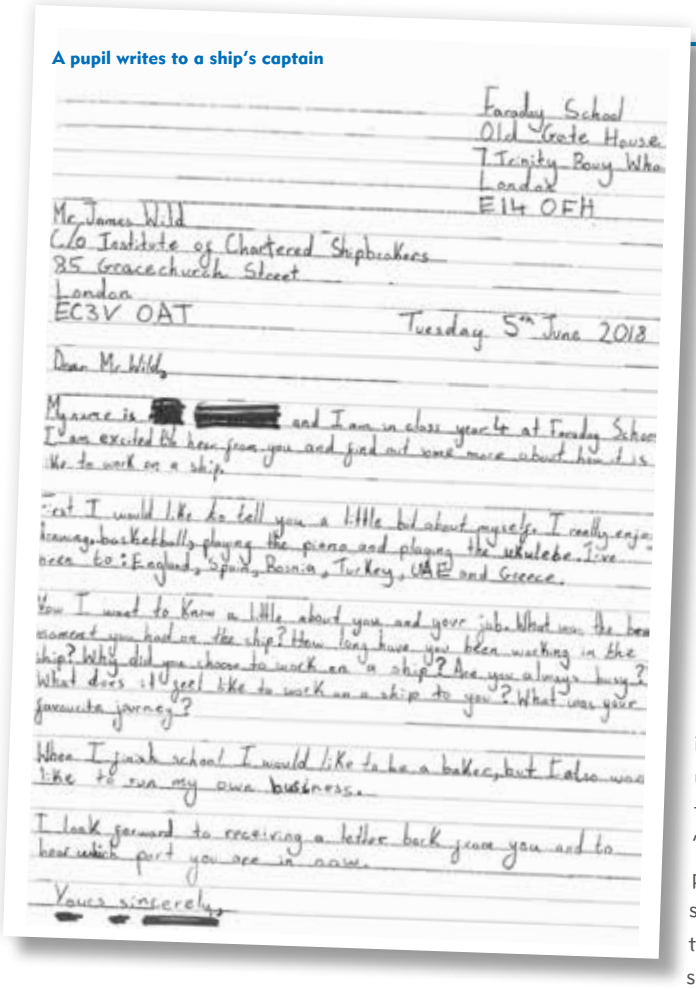
Its broad range of evening classes are designed to prepare practitioners for the Institute's examinations leading to recognised industry qualifications. The Institute offers 12 Foundation and 12 Advanced Diplomas as well as the Institute's Professional Qualifying Examinations (PQE) leading to membership. Every year, from September to May, the School runs evening classes for each of the subjects on the Institute' syllabus. Each subject's programme is covered over 12 modules and concludes with a mock exam. Classes are complemented with topical seminars scheduled through the year.

In addition to the evening classes, these professional development courses are being offered for 2019: Maritime World Explained; Introduction to International Trade and Maritime Law; Fundamentals of Liner Shipping; Fundamentals of Ship, Sale & Purchase; Fundamentals of Dry Cargo Chartering; and Bills of Lading. Each course lasts two days, with the exception of Maritime World Explained, which lasts one day, and Introduction to International Trade and Maritime Law, which lasts three days. This latter course is taking place from July 3 to 5. Meanwhile, Fundamentals of Liner Shipping will run from September 16 to 17, and Fundamentals of Ship, Sale & Purchase will take place on September 24 and 25. Fundamentals of Dry Cargo Chartering will run from October 15 to 16 and Bills of Lading will take place on November 13 and 14. Three dates have been announced for the Maritime World Explained course: September 4, October 16 and November 13.

The London School of Shipping has further plans for professional development courses in the future. Coming soon are Fundamentals of Marine Insurance: Risk and Claims; Fundamentals of LNG Shipping Operations and Chartering; and Fundamentals of Tanker Chartering. Other planned programmes are Gateways to the Maritime World (an introduction to the shipping industry and port agency sector); Laytime and Demurrage; Time and Voyage Charterparties; and Shipping Finance.

The London School of Shipping is located near London Bridge, in London, UK, and boasts flexible state-of-the-art conference and training facilities. All of its programmes are led by experienced course leaders supported by visiting expert practitioners from the extensive London maritime community. ***SN***

A pupil writes to a ship's captain



Faraday School
Old Grate House
7 Trinity Row Wha
London
E14 OFH

Mr James Wild
C/o Institute of Chartered Shipbrokers
85 Gracechurch Street
London
EC3V OAT

Tuesday 5th June 2018

Dear Mr Wild,

My name is [redacted] and I am in class year 4 at Faraday School. I am excited to hear from you and find out some more about how it is like to work on a ship.

First I would like to tell you a little bit about myself. I really enjoy [illegible] basketball, playing the piano and playing the ukulele. I've been to: England, Spain, Bosnia, Turkey, UAE and Greece.

Now I want to know a little about you and your job. What was the best moment you had on the ship? How long have you been working in the ship? Why did you choose to work on a ship? Are you always busy? What does it feel like to work on a ship to you? What was your favourite journey?

When I finish school I would like to be a baker, but I also would like to own my own business.

I look forward to receiving a letter back from you and to hear which port you are in now.

Yours sincerely,

[redacted]

initiative had "got her attention". She described it as an "excellent teaching aid to sit alongside existing core curriculum subjects", adding that it could really bring to life maritime skills in schools.

She continued saying that if the industry wants the UK maritime sector to continue to thrive it needs to make it accessible to children from early ages and help them realise the full breadth of career opportunities available to them.

Programme development

The current programme has been carefully developed in consultation with classroom teachers to ensure that it provides real world learning experiences directly linked to the National Curriculum in English, Science, History, Maths, Art, Physical Education and Geography. There are six lessons that make up the core of the programme, with a further four lessons as an extension to the programme, culminating in an optional trip to one of the recommended locations.

Each lesson lasts approximately 60 minutes and they are designed to be taught in sequence over one full school day or as one lesson per week across a term. A number of topics are covered by each lesson including trade and commodities; import and export: global trade; vessels and the cargoes they carry; navigation and technology; a letter to a ship's captain and other creative writing; and a regional section relevant to the school's location.

The team behind this programme examined why take-up of other school-targeted initiatives have faced challenges and developed this programme to have a different approach. They took existing curriculum topics already included in a teacher's lesson schedule (for example, learning about magnets) and 'marinised' them. So, the lesson on magnets now includes the construction of a compass and explicit teaching about how compasses allow vessels to navigate around the world. A Physical Education lesson uses a semaphore game, a maths lesson looks at the values of commodities, and an art lesson has pupils creating a collage of a vessel or seascape.

The other significant change in approach is that all the materials are provided, including worksheets, PowerPoint presentations, lesson plans and teaching materials to support teachers in the delivery of the content, so it is easy for them to incorporate this into their teaching schedule without any pre-briefings or training.

Teachers receive a 'maritime box' which includes a hard copy teacher's guide of the unit, a hard copy of all lesson presentations, a teacher's feedback form, a USB stick with the 'Why Shipping Matters' teaching materials, presentations and lesson support, lesson-supporting resources, a set of commodities trading cards, a poster-sized world map and a set of 'Excellent Work' stickers. **SN**

Any branch or member interested in finding out more about the programme can email schools@ics.org.uk for further details.

The cast of the first regional film for 'Why Shipping Matters'

Giving a regional flavour

Regionalising of 'Why Shipping Matters' programme highlights local history through a maritime lens. For London schools, the lesson features six figures from different stages of history talking about how they lived and worked alongside the River Thames, from a roman soldier to a modern shipbroker.

Regionalising an element within the programme increases the engagement with pupils and their local schools, and also builds links between those participating schools and their local ports and maritime museums.

In the Port of Shoreham for example, they plan to invite all participating schools to visit the port and meet the harbourmaster as part of the programme outreach. Other regional location filming is being planned throughout 2019 and the Institute hopes to roll out across the UK by the end of 2020.

Written by professionals for professionals

Shipping has become more complex to the extent that the name shipbroker, which at one time was thought to apply only to those engaged in chartering dry cargo tramp ships, now embraces separate disciplines in tanker chartering, ship management, sale and purchase, port agency and liner trades.

As an independent international professional membership organisation, the Institute of Chartered Shipbrokers strives to promote a world class program of education and training to ensure that all its members are knowledgeable about their business. As a result, the Institute produces and publishes a comprehensive series of books on shipping business.

The Institute's sixteen books are unique in that they have been written by professionals for professionals in the shipping industry. They now undergo a regular review where they are peer reviewed, revised and updated by professionals in their particular discipline and peer reviewed again, so that an accurate revision can be achieved.

The books themselves will continue to be part of the TutorShip course, but our goal is to make them more widely available to the general shipping industry, which has long requested our books as general reference titles.

Members are entitled to a 50% discount on all of the Institute's publications.

To place an order, please complete a book order form and return it to us.

For book order forms and support, please visit: www.ics.org.uk/learning

Members receive a 50% discount on all books

INSTITUTE OF CHARTERED SHIPBROKERS

National service personnel welcomed

THE West Africa Branch organised its Open Day with the National Service Association of Ghana Ports and Harbour Authority on March 21 at the Port Authority's headquarters in Tema. The theme for the day was 'Education and training in the maritime industry'. The event was attended by almost 300 National Service personnel.

The event gave the Institute the opportunity to market its courses and qualifications directly to the local shipping professionals. It was explained how the Institute's qualifications can be beneficial to those working in the maritime sector and those with different backgrounds, helping them to gain industry knowledge.

The Open Day was graced by senior port marketing officer Lydia Tham and the executives of the service association.

The branch chair, Gertrude Ohene-Asienim FICS, delivered a comprehensive presentation about the Institute's education offer; she explained how to become a member, and highlighted membership benefits. She also talked about those aspects that make shipping a good profession. She added that the Institute's qualifications are very practical and encouraged all personnel to take advantage of the Institute to build a fulfilling career.

Jonas Aryee, lecturer at the Regional Maritime University, then discussed how the industry operates and the opportunities available to personnel within the industry. David Kofi Nutakor, also a lecturer at the Regional Maritime University and a regional vice president of FIATA, delivered some key notes on how the freight forwarding business operates.

A number of members and students from the Institute also took part in support of the initiative.

During her closing remarks, Ms Ohene-Asienim challenged participants to join the Institute and to work by the most valuable principles required in business: integrity, knowledge and trust. She emphasised that these principles are the keys to professionalism and the quality standards that make the reputation of the Institute, the only worldwide recognised body for shipping professionals. *SN*

Record turnout for East Africa Open Day

THE East Africa Branch organised a successful branch Open Day on May 8 at the Kenya Institute of Management in Mombasa.

Awindah Oketch FICS (left) and Robert Watene FICS from the East Africa Branch answer questions

The event was well attended by people from the banking and insurance sectors, as well as participants from the shipping industry and secondary school leavers.

In all, over 100 people attended the event which had to be delivered in turns due to room availability. *SN*

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Business school link-up for UK branch

LONDON & South East Branch members were offered the opportunity to meet students from Cass Business School at an interactive event at the educational institute in March.

Hosted jointly by the Branch and the City, University of London business school's Energy and Shipping Society, the event, which also saw attendees from City, University of London's Maritime Operations and Management Master of Science course, was facilitated through Pankhuri Poddar, a Branch committee member and Cass student.

After an introduction from Nikos Nomikos, Cass' Professor of Shipping Risk Management, the Institute's head of membership, Robert Hill, gave a presentation highlighting the advantages of taking Institute exams and how this may further careers.

Antonios Alexandropoulos, Branch committee member and former Cass student, followed Mr Hill, explaining how his career had benefitted from his time at Cass (which is located in the UK), his subsequent qualification and Institute membership.

Questions were posed at the formal end of the meeting and many more discussions took place after the meeting, when students and Institute committee members had the opportunity to mingle.

Branch members enjoyed the networking opportunity

"This was a great opportunity to meet many of the students and explain what the Institute can offer to them in their career, and we look forward to future meetings," said Chris Hibbert, Branch vice-chairman. *SN*

FONASBA marks half-century milestone

THE organisation for shipbroker and agent bodies which was founded at the Institute has celebrated its 50th anniversary.

The Federation of National Associations of Ship Brokers and Agents (FONASBA) was created by delegates representing 11 nations at the Institute offices in the Baltic Exchange on April 23, 1969.

It will formally celebrate the anniversary at its annual meeting for this year in the US in October.

Speaking prior to the anniversary, FONASBA president Aziz Mantrach said he was aware of "the significant progress" made by his organisation in its first half-century of existence and is committed to ensuring the next half-century begins in the best manner possible.

"We will therefore continue to develop further initiatives to support our members, as well as continuing to expand both FONASBA's membership coverage and our influence in the global maritime sector," he said.

FONASBA now has 62 members stretching into the four corners of the world and representing over 5,000 member businesses.

According to a release, it is now a major maritime industry organisation, actively participating in the work of the International Maritime Organization, the United Nations Conference on Trade and Development, the United Nations Commission on International Trade Law and the World Customs Organization. *SN*

A meeting of minds for Kiwi figures

TWO stalwarts of the New Zealand maritime industry came together in March.

Bob Hawkins, chairman of the New Zealand Chapter of the Institute of Chartered Shipbrokers Australia/New Zealand Branch, visited Ian Farquhar, New Zealand's most senior and decorated member of the Institute - according to the chair - at his home while on a tour around New Zealand's South Island.

Mr Farquhar, an Institute fellow, became a member of the organisation in 1956.

Two rooms of the 89-year-old's house are dedicated to his collection of shipping photographs and books, with the maritime veteran having previously met with former Institute director Barbara Fletcher.

"I think Ms Fletcher would have soon found out that there wasn't much that Mr Farquhar didn't know about shipping," quipped Mr Hawkins. *SN*

From left: Ian Farquahar, Bob Hawkins and Shirley Farquahar (Mr Farquahar's wife)

End of a cinematic adventure

Alan Humphries reflects on the full life of John Gregson Slater

John Gregson Slater MICS, son of the late wing commander EA Slater OBE and ME (Babs) Slater, was born on March 22, 1932 and sadly passed away on March 17, 2019.

I first became acquainted with John in 1960 when I was a trainee shipbroker in Exmouth, UK. We lost touch for a number of years but started to meet again principally at local branch meetings of the Institute. Over the last fifteen or more years this built into a close friendship. We used to meet regularly for 'pasty evenings' and when we talked about the old days his face would shine; clearly, shipping was his first true love.

Whether working in the shipping industry or any of his other career paths John was always a keen supporter of the Institute. Right up to the time when he had to give up driving he was a regular attendee of the local branch AGM.

John was not a native of Devon. As the son of a serving Royal Air Force officer the family lived in many locations in England and Wales until they finally settled in Devon. John finally made his home in Starcross.

He was always industrious and as a lad one of his many jobs was an ice-cream maker with Forte's of Teignmouth. When he left school John followed his father into the Royal Air Force, however, it was a life that did not suit him. On returning to Devon he took up a position at Teignmouth Docks as shipping clerk with Renwick Wharves Ltd part of the Renwick Wilton and Dobson Group of Companies.

John's shipping career was centred on the coal trades from the North East of England to the ports of Teignmouth, Exmouth, Torquay and Kingswear, supplying local gasworks, power stations and the domestic market. John showed an early aptitude for the business and became involved in port agency as well as the physical operations of discharging and the logistics of distributing cargoes. His total commitment to the business was demonstrated when he learned to drive and rig a crane to gain the maximum output and also when he obtained an HGV driving license.

Encouraged to study and sit for the Institute's examinations, he was elected to Membership (then known as Associate Membership) in January 1956.

Cinema calling

While working in the ports John also became very interested in cinema projection and became one of the projectionists at the Riviera Cinema in Teignmouth. This initial interest turned to a life-long passion, culminating in his participation in the formation of a Museum of Cinema Projection that was based in part of the Curzon Cinema in Cleveland.

"While working in the ports John also became very interested in cinema projection and became one of the projectionists at the Riviera Cinema in Teignmouth"

Three rascals having tea: the late George Phillips FICs (left), John Slater (centre) and Alan Humphries FICS (right)

This project was undertaken by John and other enthusiasts and although the museum is no longer in existence many of the exhibits are on display in the cinema. Furthermore, based on his experience and knowledge gained as a projectionist, John lectured to local branches of the University of the Third Age on the history of cinema projection.

This experience as a projectionist assisted him in his enforced career change. Following the demise of the coal trade and the closure of the coal wharves in the late 1960s, John transferred to Renwicks Travel where he stayed for a number of years before moving to another travel agency. While working as a travel agent John travelled the South West of the UK, showing promotional holiday films, with great effect, to audiences of local Women's Institutes.

During his time as a travel agent John chartered trains from Newton Abbot via Exeter St Davids into Paddington. These charters proved very popular as they were inexpensive and gave people the opportunity to spend a day in London sightseeing, visiting family and friends or, perhaps, seeing a show.

Eventually, John left the travel industry to become a local postman, until his health deteriorated and he was unable to cycle 14 miles a day on his country round, necessitating early retirement.

John's life was a full one; in addition to his 'day jobs' he drove an ambulance, was a taxi driver and in addition to cinema projection his hobbies included photography and his garden.

His photography was largely attached to his interest in transport, including lorries and buses. This brought him a touch of late fame through the pages of Vintage Roadscene, with the May, June, July and August 2017 issues featuring lengthy articles based around interviews with him and his photographs.

John was always interested in the world around him and at the age of 84 he phoned me to ask if I would take him to the Apple store to buy an iPad.

I am proud to have had him as a friend and will miss him and all the knowledge and memories he had to offer.

John did not marry and he leaves a sister Anne, a nephew Timothy, his wife Sandra, their daughter Eleanor and son Alistair. *SN*

Loss of ex-Institute president

THE Institute is sad to announce the death of its former president Hugh McCoy.

Mr McCoy, who passed away this year, served as president from 1992 to 1994.

Born in 1939, Mr McCoy went to sea with oil and gas giant BP early on in his career and joined Clarksons from Cleaves & Company in 1983.

In the year he became president of the Institute, he also began serving on the Baltic Exchange's board of directors, a role he held until 2000.

He was also chairman of the Baltic Exchange from 1998 to 2000.

Current Institute director Julie Lithgow said that Mr McCoy was always a strong Institute supporter, something which demonstrated, in a practical form, his lifelong commitment to integrity and professionalism.

She said: "During his period as president, a challenging period for the development of the Institute, he was an integral and enthusiastic partner in the consolidation of the Institute's new qualification programme and the initial growth of overseas branches." *SN*

Institute bids farewell to retired Fellow

RETIRED Institute Fellow John Mildren has died at the age of 91.

Mr Mildren, who worked as a shipbroker and agent over the course of his life, passed away on April 14.

Born in what is now the Chinese capital Beijing, Mr Mildren moved to the UK before World War II and, following early schooling, signed his apprenticeship indentures with Moller Line UK in February 1945, joining his first ship that month.

After gaining his second mate certificate in April 1948, he decided on a change of tack and came ashore to take up a shipbroking career, working for Moller Line and later as Moller's representative on the Baltic Exchange until September 1959.

In the November of 1959, Mr Mildren and his family arrived in New Zealand, having emigrated there, and set up home in Tauranga. During his early years in New Zealand, he acquired shares in a small Pacific Islands vessel.

Mr Mildren worked as an agent and shipbroker for different firms and later formed his own businesses, including a travel agency.

He became an associate member of the Institute in October 1952 and a full member in 1956. *SN*

John Mildren was a long-standing fellow of the Institute

BRANCH NEWS

First 2019 meeting for ICSANZ Branch

THE New Zealand Chapter of the Institute's Australia/New Zealand Branch hosted its first committee meeting for 2019 in March.

The meeting took place in the administration room of the New Zealand Maritime Museum Hui Te Ananui A Tangaroa in Auckland on March 25.

Six people attended the meeting: four committee members from Australia, one committee member from New Zealand and another Australian member via Skype.

Commenting on the event, a spokesperson for the Branch said: "The face-to-face meeting was certainly worthwhile." *SN*

Nautical Institute partnership in New Zealand

THE Maritime Room adjacent to the New Zealand Maritime Museum Hui Te Ananui A Tangaroa in Auckland was an apt setting for a luncheon seminar hosted by the New Zealand Chapter of the Institute's Australia/New Zealand Branch.

The seminar, also held by The Nautical Institute New Zealand Branch, attracted an attendance of more than 30 Institute and The Nautical Institute members, along with other invited guests.

The event began with a buffet and drinks, with these being followed by an introduction to the Institute from Branch chairman Nick Vann. The seminar's guest speaker was Diane Edwards, Ports of Auckland's manager for human resources and technical development, who spoke about the 30-year plan for the port of Auckland.

Prior to the luncheon seminar, two exam candidates attended a study session run by Branch education officer Norman Lopez, with Mr Vann and New Zealand Chapter chairman Bob Hawkins helping out as needed. *SN*

Calendar

Dublin

August events

22 August
May 2019 exam results published

29 **August**
Australia &
New Zealand Branch
Branch AGM
Brisbane
(Event to be confirmed)

30 **August**
Australia &
New Zealand Branch
Annual Cocktail Party
Brisbane
(Event to be confirmed)

September events

11 September
London & South East Branch
LISW Seminar
BDO LLP, London

20 September
Ireland Branch
Annual dinner and golf outing
The Grand Hotel
Malahide, Co. Dublin

The Secret Broker

It's what's on the inside that counts

I recently read an article on the Disgusting Food Museum in Malmö and I recognised a couple of old adversaries. Perhaps unsurprisingly, some of shipping's key hubs provided a couple of the museum's star exhibits.

Years ago, I was presented with shirako by an austere banker in an expensive restaurant. Shikaro, it turned out, was fish sperm. I wish I hadn't asked – not so much because of the knowledge of what the stuff was, but more because of the embarrassment of my host as he struggled with limited English to explain exactly what I had just gulped down.

More of a challenge was raw shark's heart and raw whale blubber. Somehow they were made more palatable by sitting on upturned beer crates among red-faced salary men, ties askew, in raucous bars in the railway arches of Shinbashi and Tokyo stations.

I've eaten a bit of cooked whale over the years (not through personal choice) and it tastes just like the rubbery beef I was forced to eat at school. I was educated in one of those appalling institutions that insisted that every scrap of food that you had the misfortune to be placed in front of you had to be eaten. It was torture at the time but has given me a useful resilience and prepared me for the real gastro challenges of the deal-closing celebratory meals in some of shipping's famed locations.

In a shipyard, our broking party was once served duck feet, duck gizzard and then duck tongue, at which point my exasperated client leant over and asked "so who got the edible bit of the duck?" A co-broker in the East was particularly fond of restaurants which featured a small zoo on the ground floor. The inhabitants were usually of the scaly, shelly variety and all were anxious to avoid eye-contact. I am used to eating prawns hopping on the hot-plate or sashimi from the back of a still-gasping fish, but I'm less comfortable when a writhing snake is brought to the table. My unease didn't lessen once the head and skin had been removed, as a decapitated snake will continue to writhe for a surprisingly long time.

We all face our Waterloo eventually. Mine was at the end of an exhausting week of newbuilding negotiations. In my experience newbuilding negotiations tend to follow a set pattern in certain parts of the world. They begin with the intention to finish in three days of nine-to-five discussions and end in the early hours of day five with all parties too exhausted to argue a minute longer. Post signing ceremony, we were invited to a banquet. My client took one look at our shipyard hosts and fled to the airport, leaving his shipbroker to hold up his end of the table. After a couple of hours eating globules of unidentifiable creatures, I understood why.

All this goes to demonstrate one thing: as a broker you might think you know shipping practices, but you don't, not really, not until you've felt your insides howling from some strange foodstuff you've digested in a far-flung land long after the deal has actually been struck. ***SN***

the stern

Blue stores, blue participation

It's known for its Swedish meatballs and BILLY bookcases, but now furniture giant IKEA has waded deeper into the shipping industry.

The retailer has teamed up with shipping company CMA CGM and the Port of Rotterdam in the Netherlands, as well as non-profit the GoodShipping Program, to test sustainable marine biofuel oil made from waste cooking oil products and forest residues.

IKEA's transport and logistics services arm successfully refuelled the CMA CGM White Shark during a call at Rotterdam.

The fuel is anticipated to deliver 80% to 90% well-to-propeller CO_2-reduction versus fossil equivalents and virtually eliminates sulphur oxide emissions, all without any need for engine-modification.

It was developed by marine biofuels provider GoodFuels following three years of intensive testing.

According to an article published prior to the refuelling, the event was being praised as a "major step" towards decarbonising ocean freight.

"We have a responsibility to do our part to reduce the impact of our ocean freight," said Elisabeth Munck af Rosenschöld from IKEA.

Another 'home improvement' to thank the Swedes for. **SN**

CRedit - Gary Bembridge, CC-by-2.0

Play examines disease at sea

The National Maritime Museum in the UK capital London offered visitors the chance to "discover the unsettling history of maritime quarantine" in an immersive production earlier this year.

Quarantine: Dark Tales of Disease at Sea, a 90-minute show with performances held after museum hours, was made exclusively for the attraction by immersive theatre specialists SPECIFIQ, in collaboration with Professor Mark Harrison from the University of Oxford and Royal Museums Greenwich (RMG).

RMG invited people to "feel the tension rise as the quarantine zone [closed] in around [them], witness sinister accounts of plagues and pestilence and ultimately test [their] own morals with a real-world quarantine scenario".

Sounds sick, and not in the newer, positive sense of the word. **SN**

The immersive theatre experience captivated audiences

Credit: Royal Museums Greenwich

Shipping Speak

"This milestone event marks the real start of this exciting project, the first-ever globally-co-ordinated effort to address biofouling"
Jose Matheickal, representing the International Maritime Organization's Marine Environment Division, speaks at a workshop witnessing the start of the GloFouling Partnerships project, a half-decade venture to help protect marine biodiversity

"In the future, ships running on hydrogen fuel cells could make their own fuel directly from seawater"
American business magazine Fast Company reports on research from Stanford University scientists that demonstrates a new means of creating hydrogen fuel directly from seawater

Find your next move

The Institute and Spinnaker Global work together to promote the value of professional qualifications and training. A selection of our latest vacancies is below, visit spinnaker-global.com for our full listings.

Dry Broker, Singapore

Spinnaker Global is on the lookout for a Japanese speaking Dry Broker to join a large independent shipbroking company in their Singapore office. The successful candidate will have at least 2 years' experience in Supramax, Panamax or Capesize, in a broking and/or chartering position and will be able to bring business with them to a new role. The ideal candidate will have a positive attitude and be self-motivated with great problem-solving skills.

https://jobs.spinnaker-global.com/Job/pr010086_dry-broker-singapore_asia-pacific

Dry Operator, London

A leading ship broking company is seeking for a Dry Operator to join their team in London. You will be responsible for handling all operational matters, dealing with all vessel documentation, liaising with masters & agents, working with the finance department to improve communication and completing day to day operational duties. The right candidate will have at least 2 years' experience within the dry sector and have EU working entitlement.

https://jobs.spinnaker-global.com/Job/pr010104_dry-operator-london_europe

Clean Product Tanker Broker – London

An international shipbroking house in London is looking to add an experienced Tanker Broker to their team. The ideal candidate will have experience with clean tankers and have a strong network of contacts in the market.

https://jobs.spinnaker-global.com/Job/pr010082_clean-product-tanker-broker-london_europe

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