Seatrade

Maritime Review

Issue 2 June 2020

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keeping vital trade moving

Reports include

CORONAVIRUS IN CONTEXT: DR MARTIN STOPFORD

NB While every effort has been made to ensure event dates were correct at the time of going to press, readers are recommended to consult individual event websites to ensure schedules remain unchanged.

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EDITOR'S DESK

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Seatrade Founder Themistocles Vokos

Head office UK

Seatrade
Informa Group, Sheepen Place, Colchester,
Essex CO3 3LP
www.seatrade-maritime.com

Chairman Chris Hayman
President, Maritime Group, Informa Markets Andrew Williams
Group Director, Seatrade Cruise & Publisher Mary Bond
Editor Bob Jaques
Production Editor Fiona Hockey
Sales Director Grant Elrick
grant.elrick@informa.com
Advertising Sales Manager Glen Spooner
glen.spooner@informa.com
Dir +44 (0) 207 017 4828
Advertising Sales
Chris Adams chris.adams@informa.com
Marie Gresham marie.gresham@informa.com
Sunny Patel sunny.patel@informa.com
Production Manager Viv Marsh
Production Assistant Libby Isted

Overseas Editors

Full details: www.seatrade-maritime.com
Asia Marcus Hand
Greece David Glass
Americas Michele Labrut
Liner Jim Hanscom
South Asia Shirish Nadkarni

Overseas Sales Representatives

MIDDLE EAST
Richard Johnson richard.johnson@informa.com
Adam Whitehead adam.whitehead@informa.com
Arshed Hussain arshed.hussain@informa.com
HONG KONG / SINGAPORE
Victor Halder victor.halder@informa.com
SHANGHAI
Li Xiaoli xiaoli.li@informa.com
AMERICAS
Christophe Cahen
christophe.cahen@informa.com
Jorge Rojas jorge.rojas@informa.com
Gaevin Perkins gaevin.perkins@informa.com

Bob Jaques
Editor

Global disruption

The impact of COVID-19 has been unprecedented, unfurling across the world like some giant black cloud and delivering the sharpest economic downturn of recent times.

If any positive for the maritime industry has emerged so far it has been to point up the essential role of seafarers and other marine personnel in keeping trade moving. Never has the adage proved truer that 'oceans not only separate nations, they also connect them' and there has been an outpouring of support for those who spend their working lives at sea (see pp.13-15).

Shipping economist Dr Martin Stopford points out in this issue's lead article (pp.9-11) that crises affecting shipping have tended to occur fairly regularly, roughly once every decade, the previous one having been the financial crash of 2008/9. These act as inflection points in shipping industry cycles and can have a salutary effect in the longer term by helping rebalance tonnage supply and demand.

Today's crisis looks set to cause a short-term dearth of shipbuilding orders but Stopford reckons this could help the industry better prepare for the rapid progress it must make in coming decades towards low, and eventually zero, carbon emissions – which he describes as the biggest technical challenge facing ship design since the transition from sail to steam.

This issue also contains reports on the major shipping hubs of Singapore and the Middle East, including their efforts to combat spread of the virus. This year's Singapore Maritime Week, scheduled for April, was an early casualty of the pandemic while Dubai has also seen its landmark hosting of Expo 2020 due to start in October postponed until 2021.

Other leading shipping gatherings like Posidonia in Greece, SMM in Germany, and CMA in the US have all had to shift dates as well, completing the picture of truly global disruption.

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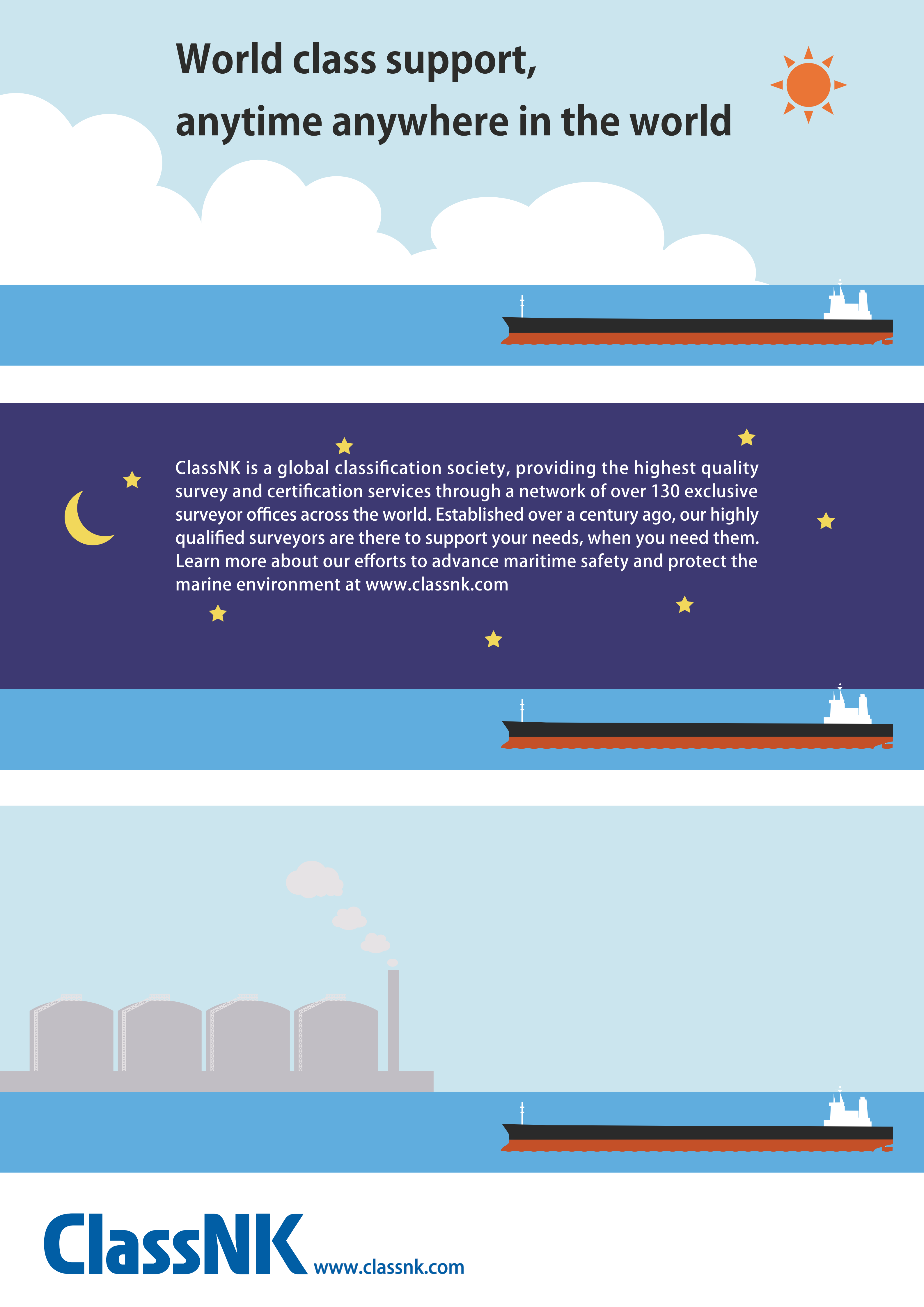
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PHOTO: CORTEC

No end in sight on roller coaster ride

You can't just turn off an oil field or stop a refinery overnight. So what happens when oil supply surges and demand collapses in tandem? **Paul Bartlett** reports.

These are the unprecedented circumstances which make up the current backdrop to the tanker scene where owners are normally accustomed to major volatility, but nothing quite like this.

A combination of the COVID-19 virus and the failed attempt by OPEC+ to implement production cuts has meant that the world is swamped with unwanted oil. Barrel prices have sunk to loss-making levels for producers; production shut-ins are inevitable; and final investment decisions on new energy projects are definitely on hold. Exploration and production spending is likely to be down by a trillion dollars this year, said Oslo analyst, Rystad Energy.

The main issue is that there is nowhere to put the crude oil that refineries don't want to process, or the refined products that nobody wants to buy. Aircraft are grounded, road transport is way down and heavy industries including steel, petrochemicals and shipbuilding are running at a fraction of normal levels.

Meanwhile, land-based storage is close to full, so holding stocks of crude and products at sea is the next best option. Huge volumes of crude oil and record amounts of refined products are now being stored on crude tankers and product carriers fixed on periods of up to six months (see chart).

Braemar ACM reported that more than 240 product tankers are now storing products at sea and the broker expects clean petroleum product (CPP) volumes to continue growing until mid-year. The firm's data indicated 22 LR2s, 36 LR1s and 186 MRs deployed in storage late in April.

This extra demand for tankers to store oil has underpinned another huge spike in rates. And with weak demand for oil – estimated to be down by 20-30% on normal levels as from COVID-19 – and nowhere to put it, the tanker boom looks set to continue for months. The quest for available storage should support high tanker rates high well into the second half of the year, said AXS Marine in its weekly tanker report.

VLCC rates peaked at record levels in October before falling back, mostly, between November and the end of February. Then they spiked again in March and, as April drew to a close, daily rates for spot VLCCs were in the $170,000s. Product tankers in the LR1/2 categories were well into six figures too.

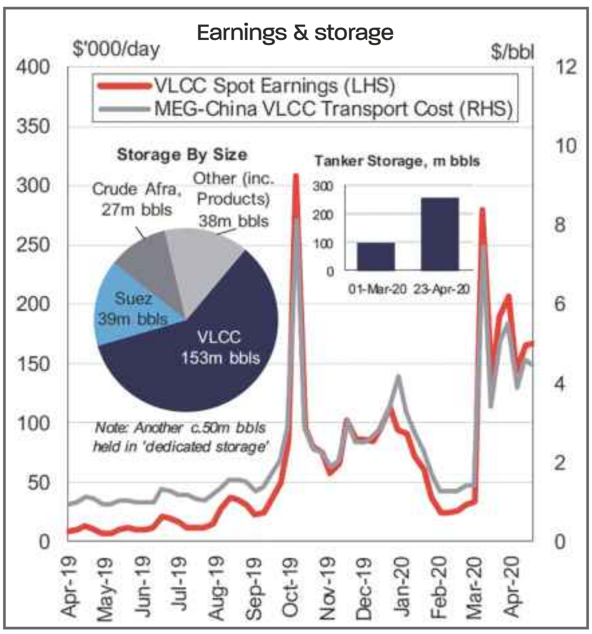
In the final week of April, average rates for MR product tankers (40-55,000dwt) had climbed to the mid $70,000s, according to Clarkson. To put this in context, this is five times the average rate for MRs in 2019. However, analysts said there was scope for rates to rise further as refinery output showed little sign of easing and there was heavy demand for more storage.

No wonder, then, that trading in tanker stocks has broken all records, with more than a billion dollars invested in a single day in late April. All of the main publicly listed tanker companies saw their share prices soar and the net asset values of their fleets multiply as investors piled in. Balance sheets will be transformed.

However, while tanker owners and their brokers crack open the bubbly and celebrate remotely on Zoom or Skype, others are sounding a note of caution. What goes up must come down at some stage. The huge volume of static tankers currently in storage will have to be absorbed back into the trading fleet at some stage.

In a recent White Paper* on the impact of COVID-19, shipping economist Dr Martin Stopford predicted three scenarios for shipping between now and 2050. They envisage varying degrees of disruption to seaborne trade's 3.2% average growth rate. However, they also predict a steady reduction in the world's dependence on oil and likely reductions in tanker transport by sea. ●

**Downloaded White Paper at* *www.seatrade-maritime.com/ship-operations/whitepaper-coronavirus-climate-change-smart-shipping-three-maritime-scenarios-2020*



SOURCE: CLARKSONS RESEARCH

Iron ore demand a ray of hope?

Marcus Hand examines whether a return of Chinese domestic infrastructure spend and increased steel output can bolster freight rates.

The dry bulk shipping market has seen some recovery since hitting its lowest point in four years in early February, however, the continued impact of the COVID-19 leaves an uncertain outlook although a return of Chinese iron ore demand provide positives some believe.

In the first half of February the dry bulk market collapsed to levels not seen since the worst market in living memory in early 2016. A combination of the seasonal slowdown in Chinese demand, and the extended shut of most of China's industrial economy through February as the country fought to bring the coronavirus outbreak under control saw freight rates crumble with the Baltic Dry Index falling to 411 points.

The impact on demand could be clearly seen on Brazilian iron ore exports and in the first quarter of 2020 Brazil shipped 63.4m tonnes of iron ore down some 19.2% based on preliminary vessel tracking data brokers Banchero Costa reported. There was some improvement as the quarter progressed – in January Brazil shipped just 20.6m tonnes of iron ore, down 30.1% year-on-year. This figure inched up to 21.7m tonnes in the month of March, which was 8.6% lower than the year before. However, March 2019 volumes were impacted by fallout from the Brumadinho dam disaster.

While Banchero Costa was still bearish about Brazilian iron ore exports in early April the improvement of the Chinese industrial production, although remaining impacting by COVID-19, and in particular domestic infrastructure spending to near pre-crisis levels bodes well for iron ore imports and dry bulk believe Breakwave Advisors. As a result Chinese onshore iron ore stocks have been sliding although steel stockpiles remain high.

'There are indeed a lot of risks in the macro environment, but the uncorrelated nature of dry bulk combined with improving Chinese infrastructure demand, and as a result the potential for increased iron ore imports, should lead to higher iron ore volumes for the rest of the year,' Breakwave Advisors said in a late April report.

'Although Brazilian first quarter iron ore exports were particularly weak, we expect a significant improvement in the months ahead, potentially leading to the highest April-December exports ever out of the region. Our forecast highly depends on Vale's ability to deliver volumes in line with their recent guidance, which was cut by 10% in mid-April. Once again, all eyes turn on weather and the significant rainfall in the iron ore mining regions that continues up to this day,' the report said.

Breakwave Advisors expect a similar pattern for capesize rates as last year although at the time of writing the BDI had slipped back from a high of 757 points on 19 April to 643 points.

A positive for dry bulk shipping is that newbuildings stand at 83m dwt, around 10% of the fleet, although 70% of these are due for delivery in 2020 according to Maritime Strategies International (MSI). However, the shutdown of Chinese yards through February is expected to result in a significant slippage in deliveries.

Looking at the broader picture of supply growth, Peter Sand, Bimco's chief shipping analyst commented: 'While the overcapacity that dominated the dry bulk market in much of the 2010s continues into this new decade, the coronavirus will surely leave its mark on the 2020s. This puts demand under severe pressure and causes high uncertainty as to how the situation will develop, even as ordering activity and fleet growth slows.' ●

Dry Bulk Fundamentals

Demand	YTD	YOY
China Steel Production	234mt	1.2%
China Steel Inventories	10.4mt	64.6%
China Iron Ore Inventories	118mt	-13.3%
China Iron Ore Imports	263mt	0.7%
China Coal Imports	96mt	28.3%
China Soybean Imports	31mt	6.2%
Brazil Iron Ore Exports	71mt	-16.3%
Australia Iron Ore Exports	123mt	-5.1%
Supply		
Dry Bulk Fleet	891dwt	1.4%

SOURCE: **BREAKWAVE ADVISORS (FIGURES FROM BREAKWAVE & BLOOMBERG)**


PHOTO: BURCU

Stranger than fiction

Taking his cue from the title of the popular novel 'Love in the Time of Cholera,' **Jim Hanscom** looks through a glass darkly into the future of the liner industry.

Love in the time of COVID-19 includes a challenge to our forecasting skills. When will it be over is obvious? Will it be over involves a matter of faith.

There have to be odds on when and whether we return to eating half our meals out. Or whether we resume our former intake of processed beef and pork. Or whether we resume driving at the same level. Which envelops the question of when we buy our next new car.

In the grand scheme, things will never be quite the same, and deeper changes will follow longer disruption. We thrive on chaos and live life on the edge, with the average family keeping surprisingly little in the bank for that rainy day. The one that just arrived.

Nearly all of these changes touch shipping in some way. And each carries different odds. Cruise ship operators probably face the starkest uncertainties, while tanker operators, by a strange quirk, prosper from an excess of oil, finding demand from the storage value not the transportation value of the cargo.

Liner shipping stands out at as a wild card, balancing on the edge of dashed hopes, Our Lady of Constant Sorrow. Ironically, it may be that familiarity with plans gone awry is what supplies the flexibility for survival to hoist the carriers through that Hanjin moment. That, and a meagre orderbook.

A decade ago, in similar circumstances brought on by viral real estate speculators, the industry faced an overhang of more than 50% – now, it's only 10.4%.

The short run adjustments required to re-wire global trade flows will be substantial. One estimate runs to $23bn over the next year, but we doubt it.

Part of that is one-off, ferrying containers back into their proper place. The industry has built a lot of flexibility into its alliance structure, and has become adept at doubling up challenges. Remember the colossal misstep looming from desulphurising bunkers? It was largely submerged by the Saudi pricing attack.

China is starting on the mend, which will lead back to the big trade problems that were cycling before and may be excused or forgotten.

True, the uncertainty for the next month, the next year, is palpable. The US has managed to accentuate the negative by trying to accelerate the positive. The Trump Administration, fearing a fall election in the midst of a continued lockdown with economic consequences and 20% unemployment, has cynically chosen to pretend that the virus will have come and gone.

Liner Fleet as at 1 March 2020	
No. of liner ships incl. non-cellular	**6,146 units**
Total liner capacity (teu)	23.655 Mteu
Year-on-year increase %	3.5%
No. of cellular ships	**5,342 units**
Total cellular capacity (teu)	23.276 Mteu
Year-on-year increase %	3.7%
Chartered fleet % by teu	55.9%
Cellular fleet as % of liner total	98.4%
% of cellular fleet idle	10.6%
Orderbook	2.432 Mteu
Orderbook as % of current fleet	10.4%
Deliveries Jan-Feb 2020	17 units/68,303 teu
Deletions Jan-Feb 2020	11 units/15,530 teu
New Orders Jan-Feb 2020	0 units/0 teu

SOURCE: ALPHALINER

Meanwhile, the numbers of infected continue to rise, there is no testing system worthy of the name, and there is no antidote yet discovered. Advocates risk prolonging the infection, as if the virus cared.

Blanking for container operators has become a way of life. Ship operators shut down parts of the system on the fly. Three million teu lies at the idle, almost at the snap. And the idle is heavily weighted to that with the least financial drag; the most efficient vessels are left in the water. Coping skills are better, as witness the recent switch of a Europe-Asian trip to around the Cape of Good Hope, saving a $500,000 Suez bill.

So, the bottom line is that the liner business bends but doesn't break, and takes its place in the displaced asset queue.

Transportation has gotten quite good at this: row upon row of Boeing's best (and worst) airplanes nestled on a runway in Southern California, miles and miles of Union Pacific's coal hopper cars in Wyoming, and basins to match the shipping fjords of northern Europe and southern Asia.

The biggest challenge is the cost of the fix. Do we really have $4trn to spend, or whatever it takes? The system is already shaking. This is the year Exxon borrows to pay its dividend. Small gold stocks just fired their first warning. Are bullish free-marketeers and bail-out Robin Hoods flying too close to the sun?

Love in the time of COVID-19 could just include floating the granddaddy of all Ponzi schemes. ●

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Coronavirus in context

In late April, Seatrade published a latest analysis by **Martin Stopford** into the likely impact of the COVID-19 pandemic on the future of seaborne trade and shipbuilding, as **Bob Jaques** reports.

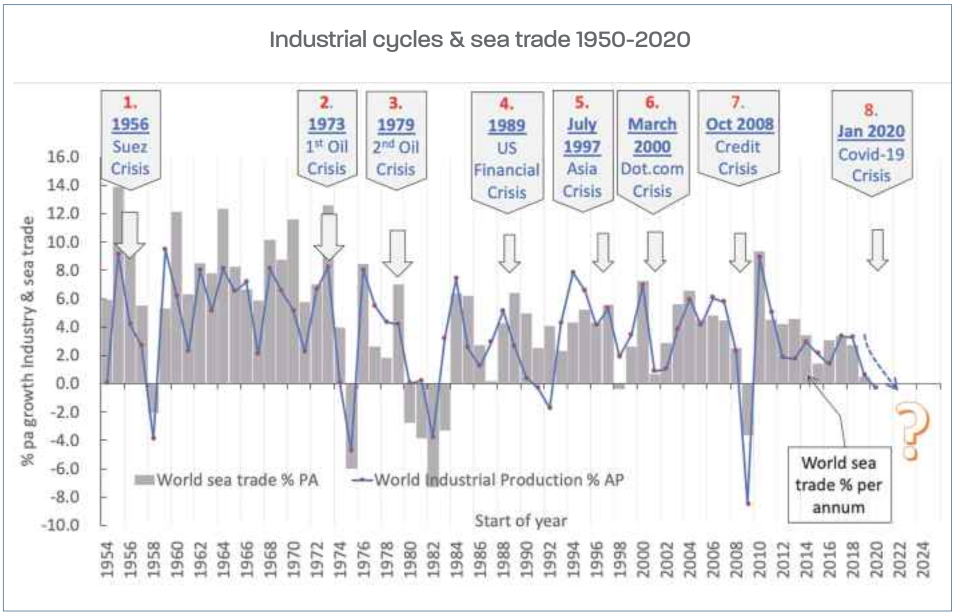
Eminent shipping economist Dr Martin Stopford, president of Clarkson Research, has compiled a new whitepaper looking at the possible effects of COVID-19 on trade and the shipping industry, and how it will combine with the requirement for reduced carbon emissions and the embrace of digitisation to impact shipbuilding over coming decades.

Entitled 'Coronavirus, Climate Change & Smart Shipping: Three Maritime Scenarios 2020 – 2050,' the 20-page study is based on a conference presentation given by Stopford at Marintec China last December, subsequently developed to factor in possible effects of the rapidly escalating COVID-19 pandemic. It was first published as a whitepaper on Seatrade Maritime News in late April (see box for full download details).

COVID represents just the latest in a series of crises that in modern times have tended to strike shipping roughly once a decade,' Stopford explained to Seatrade in early May, providing the updated graph that is reproduced below. The chart represents the latest iteration of his analysis of shipping cycles that forms a mainstay of his best-selling Maritime Economics textbook, originally compiled during one of shipping's worst downturns in the 1980s.

'It shows cycles in world industry since the 1950s, correlated with cycles in seaborne

SOURCE: MARTIN STOPFORD 2020

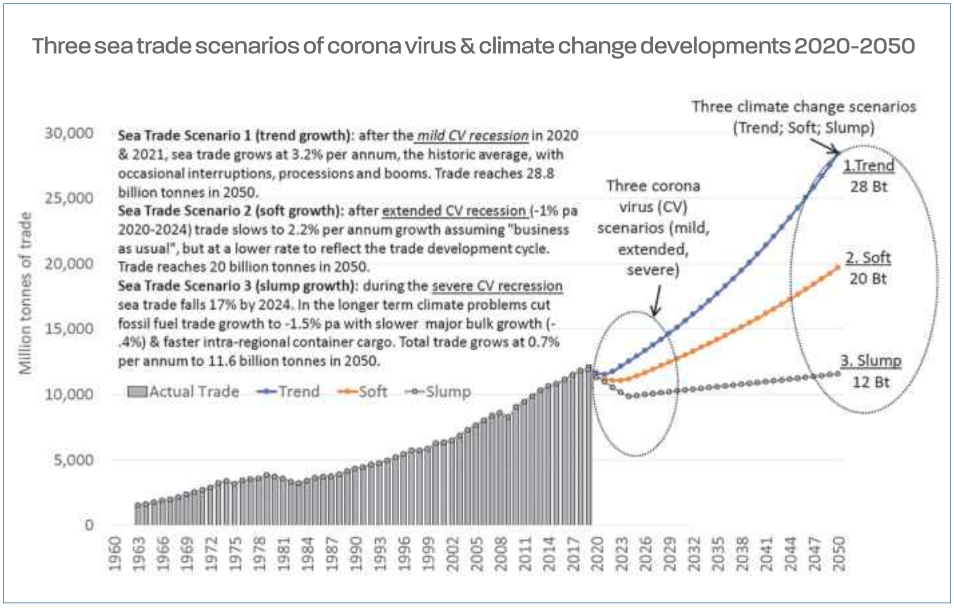


trade,' he explained. 'During this time there have been eight crises, and it is clear from the chart that the crises are associated with troughs in world industry and cycles in seaborne trade growth follow the industrial cycles very closely, but not precisely. For example, in the 1980s trade fell much more than industrial production, due to the collapse of oil shipments after the price went to $39 in 1979.'

But even the 1980s shipping recession pales by comparison with 'outstandingly the worst crisis in modern times, in the 1930s,' he added. 'Prices of ships collapsed, yards were closed and owners went bankrupt.'

So the big question is how will the effect of the current pandemic measure up to these calamitous periods in the past?

Mindful of the extreme uncertainty that prevailed at the time of his research and writing, Stopford outlines in his whitepaper three possible scenarios of how trade by sea might develop:



SOURCE: **MARTIN STOPFORD 2020**

Scenario 1 ('Mild') is the most favourable option, envisaging merely a short-term recession lasting around 12 to 18 months, followed by a rapid return to the previous historical norm in seaborne trade, growing by an average of 3.2% a year from 2022 onwards, reaching 28.8bn tonnes by 2050.

Under this 'trend growth' scenario 'the fiscal measures (15-20% of GDP) get businesses back to work reasonably within budget and by year end economies are working again,' commented Stopford. 'Testing, treatment and inoculation prevent further major recurrences

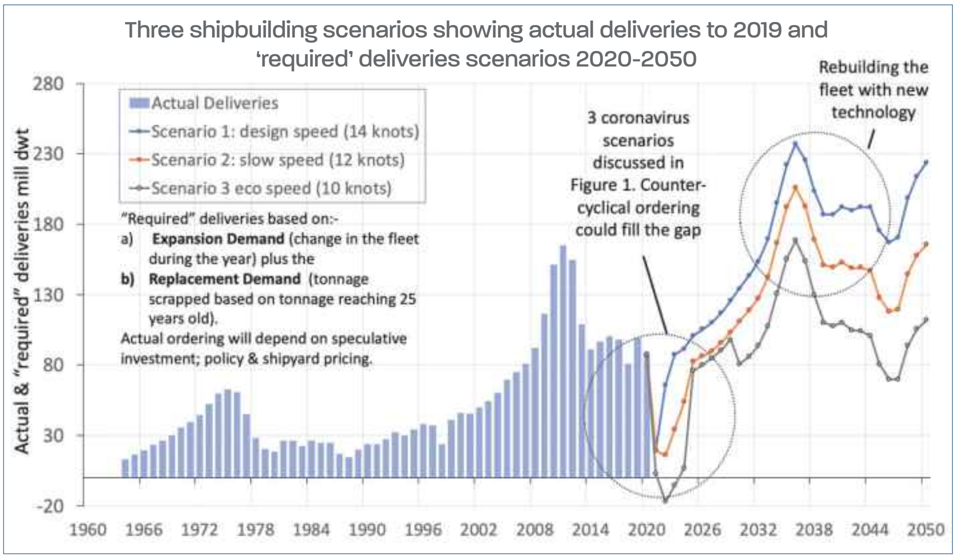
SOURCE: **VARIOUS, COLLECTED BY MARTIN STOPFORD**

Analysis of shipbuilding prices in $/dwt for standard "handy" dry cargo ships 1885-2020

Trough duration		Cycle length			Ship Price $/dwt		Trough	
Rank (1)	**PERIOD**	**Start**	**End**	**Years**	**Peak (2)**	**Lowest**	**Severity**	**Description**
1	1930-1936	1930	1936	7	35.6	2.1	-316%	Shipbuilding boom followed by 1930s trade slump
2	1920-1926	1920	1926	7	87.8	35.2	-107%	Post WW1 shipbuilding boom, 1920-21 trade slump
3	1983-1987	1983	1987	5	560.4	297.5	-71%	2nd Oil price shock & early 1980s trade slump
4	1997-2004	1997	2004	8	512.1	387.7	-62%	Asia Crisis recession followed by dot.com recession
5	1976-1979	1976	1979	4	450	332.7	-53%	Shipbuilding boom, 1st oil price shock & trade slump
6	2009-2017	2009	2017	9	958	550	-49%	Shipbuilding boom, credit crisis & financial easing
7	11 Others	Na	Na	3.0	Na	Na	-25%	Average of 13 other cycles

Note 1: Excludes 1913-15 cycle
Note 2: Peak price in year before the trough start

SOURCE: **MARTIN STOPFORD 2020**



[of COVID] and credit issues are successfully managed.'

Scenario 2 ('Extended') sees the virus-induced recession stretching out roughly five years, averaging -1.0% over the period 2020-2024, after which growth resumes but at a slower rate than before of average 2.2%, reaching 28bn tonnes in 2050.

Under this 'soft growth' outlook the virus proves harder to shake off, and fiscal support more drawn out and 'well over budget' as businesses slowly adapt to their altered circumstances, said Stopford. 'It is 2023 before the major G7 economies are back onto an even keel.'

Scenario 3 ('Severe') is Stopford's worst case prediction, which sees persistent problems, deep economic recession and a 15% fall in seaborne trade by 2024, followed by annual growth of just 0.7% annually over the next three decades to 11.6bn tonnes in 2050, some 1bn tonnes less than in 2019.

This pessimistic 'slump growth' forecast sees 'virus-related problems drag on, compounded by problems in the real economy as businesses struggle to get re-established. Tourism and business travel recover slowly, as do public gatherings. Global oil trade falls steadily… repetitive or ongoing partial lockdown funded by fiscal programmes rises way above the original 15% to 30% prove difficult to manage and have limited success in stimulating the demand upturn needed to kick-start recovery.'

By early May, Stopford was already doubtful that mild-case Scenario 1 would still be possible, and he feared an outcome somewhere between the other two.

But he doubted any repeat of the 1930s depression because 'the big difference today, is that we have massive fiscal management, and how this will turn out hinges on that.'

He went on to point out that in the ten years since the financial crash in 2009, seaborne trade had actually grown by 27%, 'which is not that bad at all'.

Likewise, while all three scenarios in the whitepaper are described as presenting shipyards with a 'sharp downturn in new business over the next two or three years,' as Stopford goes on to analyse, in the longer term they point to 'substantial shipbuilding demand due to trade growth, slower operating speeds and the re-engineering of cargo ships in response to climate change and smart shipping.'

Ironically, the pandemic might yet bring about some good in shipping, as in society at large, if it serves to fast-forward to a more sustainable future, which for maritime means new 'waves of development … to build a fleet of robust and commercially viable ships, incorporating new and untried mechanical, electrical and digital equipment.

'A wave of enhanced diesel ships might be followed (or accompanied) by a wave of gas and hybrid electric powered vessels,' he continued, 'then a wave of zero carbon ships e.g. using fuel cells. Each 'wave' would allow new technology to be developed and commissioned in real-world operating conditions, on a gradual but cumulative basis.'

Such a phased approach is far more conceivable than any abrupt transition, Stopford observed, and is how the industry managed its previous biggest change in ship design during the switch from sail to steam in the late 19th and early 20th centuries.

'We know we cannot predict the future,' Stopford concluded. 'But we can try to prepare for changes that are clearly 'on the cards'. Not preparing can be riskier and more expensive than the "safe" option of doing nothing.' ●

For a complimentary download of 'Coronavirus, Climate Change & Smart Shipping: Three Maritime Scenarios 2020 – 2050' please visit the 'Whitepapers & Reports' section of the Seatrade Maritime News website, or alternatively use the direct link: www.seatrade-maritime.com/ship-operations/whitepaper-coronavirus-climate-change-smart-shipping-three-maritime-scenarios-2020

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PHOTO: SYNERGY GROUP

Seafarer solidarity

The role of seafarers has never been shown to be so essential as during the pandemic, writes **Bob Jaques**.

The COVID-19 pandemic highlighted the role of shipping as a dependable conduit for vital supply chains, with seafarers shown up as an essential workforce that is able to keep trade moving despite the many privations of life at sea, even at the best of times.

Global lockdown was not the best of times, however, with port access often denied to ships and their personnel and international travel restrictions further preventing the carrying out of crew changes. Other marine personnel such as pilots, inspectors, surveyors and ship agents were also hindered in carrying out their business.

International bodies such as the IMO (International Maritime Organization) and ICS (International Chamber of Shipping), together with ship managers, led calls for marine personnel to be considered as 'key workers' by governments and excluded from travel restrictions, while the shipping industry joined forces with the aviation industry to propose the designation of certain ports with easy access to international airports as special 'hubs' for crew transport.

Meanwhile, P&I Clubs worked round the clock to help deal with distressed seafarers who might be ill, injured or needing to return home to care for sick relatives.

At the instigation of its member North, the International Group (IG) of P&I Clubs also launched a freely accessible online digital portal to collate latest country and port responses to Covid. The tool sources data from all 13 IG members, the IMO, World Health Organization and other leading sources (including Wilhelmsen and GAC) and is intended to 'assist ships with chartering, operations and help prepare staff for what to expect when arriving in port.'

At the same time, the International Association of Ports & Harbors (IAPH) has been issuing weekly update of news and information from its members, advising on matters such as port delays or restrictions, vessel call frequency, dockworker availability, storage capacity utilisation, and ease of hinterland cargo flow.

Countless initiatives to help seafarers who found themselves stranded at sea were forthcoming, from shipowners and operators, managers, charities, online educational bodies and more. Satcom provider Inmarsat, for example, provided free airtime for all COVID-related communications, also reducing its charges by 50% during the pandemic so that seafarers could stay in touch more easily with family and loved ones back home.

This outpouring of solidarity peaked on May 1, International Labour Day, when at the behest of the ICS and International Transport Workers' Federation ships in ports all around the world sounded their horns in unison to recognise the contribution and sacrifice being made by seafarers and other maritime personnel, both onboard and ashore, during the crisis. ●

A full transcript of answers to the Seatrade Ship Managers' Survey 2020, Part 2 of which begins overleaf and covers 'the main drivers for outsourcing ship management' and 'the attraction and retention of talented sea and shore staff' – can be downloaded from ***www.seatrade-maritime.com***

Ship Managers' Survey 2020

Before COVID-19 struck, Seatrade sent out its annual Ship Managers' Survey questionnaire to a dozen leading companies in the sector. In this second part of the write-up, **Dr. Malcolm Willingale** looks at answers as to the advantages of third party management and how to source, train and retail quality crew.

Q: What do you see as the main drivers of outsourcing ship management in 2020? Have these drivers changed and why?

Many drivers of outsourcing are identified by the respondents, with the answers suggesting that the value proposition offered by third party ship managers to their primary clients is beginning to change.

Ian Beveridge, ceo of BSM (Bernhard Schulte Shipmanagement), provides a useful re-cap of what have traditionally been seen as some of the most persuasive drivers. He identifies access to qualified and competent crews, especially for large size and specialised vessels such as LNG, lower vessel operating (opex) costs, the flexibility which an owner can enjoy in investing and divesting, dealing with regulatory compliance issues, especially in an era of increasing penalties for non-compliance, the ability to cope with stringent charterer and port terminal vetting requirements and the opportunity to achieve improved fuel efficiency through optimization.

While Beveridge's list focuses on issues relating to the costs of ship management and Carl Schou, president & ceo of Wilhelmsen Ship Management, does not see that these drivers have changed, while Synergy Group founder & ceo Capt. Rajesh Unni goes so far as to say that 2020 'could well be the year when people see the true value of quality ship management' and a year 'when a lot of owners look beyond costs and focus instead on service quality.'

Mark O'Neil, ceo of Columbia Ship Management (CSM) reflects Capt. Unni's belief by stating that the services provided by a third party ship manager must be both relevant and compelling: the former in the sense that services need to be customised to the individual client and not commoditised; the latter in that it should make no commercial sense for owners not to outsource due to economies of scale, vessel optimization, crew competence and training, digitised procurement and logistics and enhanced safety which he believes is simply not possible for the majority of small to medium sized owners.

Scale economies is a driver also cited by Gerardo Borremeo, ceo of Philippine Transmarine Carriers (PTC), and by Kishore Rajvanshy, md of Fleet Management Ltd, with the latter also recognizing that the drivers of outsourcing are changing reflecting changes in ship ownership by way of the entry of more financially orientated investors including private equity and Chinese leasing players.

Of all of the outsourcing drivers identified, the challenges facing owners due to increasing regulatory compliance is the most oft-cited by the respondents.

Most respondents use a broad definition of regulatory compliance with Frank Coles, ceo of Wallem, believing that the scope and complexity of industry regulations and operational compliance is far greater than ever before. As a result, he believes that an objective subject matter expert equipped with the 'approvals, tools and expertise is better placed to ensure a client's compliance with regulations in everything from bribery to environmental regulations.'

Building on Frank Coles' comments, Intership Navigation ceo Dieter Rohdenburg stresses that 'shipping is a complex industry (with) regulatory challenges growing day by day.' He highlights the fact that not only do shipping companies have to comply with IMO regulations and those of their respective flag states and the port states they are trading to, they also have to comply with national and regional sanction policies and selective voluntary adoption by different industry stakeholders such as shipping lenders or investment funds. He stresses that 'the increasing task of being 'compliant' with all sorts of regulations is something that is difficult to achieve for smaller owners.'

Capt. Rajesh Unni

Mark O'Neil

Kishore Rajvanshy

Perhaps the most interesting idea

tabled was by Sikha Singh, director of Executive Ship Management (ESM). Building on her belief that a competent and professional ship manager will remain an irreplaceable specialist service provider in the foreseeable future, Singh suggests that the role of a ship manager has become more intense and extensive and that it is no longer a passive management skill but a proactive guidance based on dependable resources especially human resources which can provide the necessary assurance to a ship owner during this critical and testing time. Her view is also shared by V.Ships which also highlights the importance of proactivity.

Summing things up, V.Ships' spokesperson stresses that ship management is a 'highly skilled profession (which) is moving away from a simple transaction with a 'no-frills' label and as such is becoming a valued relationship in the shipping industry. They add: 'Ship managers need to be constantly looking at ways they improve.'

Q: What is your company doing to attract and retain talent working ashore and afloat?

While all respondents acknowledge the importance of this question, illustrated by ESM director Singh's remarks that 'loyal and passionate professionals are the backbone of the organisation as well as a ship's operation,' the diversity of the responses received reflects the complexity of the challenges faced.

With regard to attracting new talent to shipping, InterManager secretary general Capt. Kuba Szymanski offers a wider industry perspective, seeing recruitment as an 'extremely uphill struggle.' PTC's Borromeo expands on this belief by highlighting some of the particular challenges which must be faced when starting out on a seafaring career, including oft-cited challenges such as long days at sea, lack of a social network fatigue, creeping loneliness and what he vividly describes as the 'constant spectre of criminalisation hanging over the heads of maritime professionals.'

Borromeo believes that these challenges – to which V.Ships adds the growing awareness of mental health issues (see also previous story) – will explain the continuing supply shortage of competent officers into the foreseeable future. In the face of these persistent challenges, he goes on to suggest that employees need to help potential new recruits to find 'meaning and purpose in a maritime career' in order to convince the 'best and the brightest of the next generation of students' to consider becoming a global maritime professional.

Synergy Group's Capt. Unni believes that young people do find shipping an attractive industry to join especially as it is undergoing remarkable change providing that you can engage with young people in a way that they find inspiring. He also stresses that shipping should play to its strengths via the 'age-old attraction of offering employees the ability to meet and engage with many different cultures globally as what he describes a 'potent mix'.' He goes on to add that Synergy works on 'empowering our people especially women and we are very proactive on CSR (Corporate Social Responsibility).'

His beliefs are echoed by Wallem's Coles, who stresses that it is critical to offer 'a work environment (which) is modern, smart and provides an opportunity to flourish as the key to attracting and retaining talent'.

When it comes to retention, a common thread among different respondents highlighted the importance of creating the right culture. Beveridge highlights the importance of BSM being a family-owned company which is now run by the fifth generation of the Schulte family, which enables it to take 'a long-term view with focus on sustainability and maintaining our good reputation.' He also stresses the importance of offering cadet and trainee schemes, wholly owned recruitment centres – likewise mentioned by Intership's Rohdenburg – as well as the need to create an innovative and entrepreneurial environment.

This belief is echoed by Wilhelmsen's Schou, who also stress the importance of creating a culture which will enable talent, including the next generation of leaders to thrive.

CSM's O'Neil expands further by stressing that a company culture needs to be underpinned by strong corporate values and that people need to be and feel valued as highlighted by CSM's TogetHER campaign. He also stresses the need to pay people fairly and offer equal opportunities and career progression.

While accepting that technology, digitization and optimisation will not replace human endeavour, not surprisingly O'Neil and others highlight the growing importance of technology. Coles believes that you need to use technology to create a working environment which is modern, smart and enables people to flourish. He adds: 'A happy crew and (office) staff are a safe staff who produce quality work.

Fleet's Rajavanshy echoes the need to ensure that people are paid promptly and offer progression as well as a culture that focuses on safety and well-being.

Rohdenburg also acknowledges the need to offer what he terms as perks to improve the work/life (imbalance) something which often aired when it comes to attracting and retaining talent. He identifies these as flexible working hours, kindergartens, gym facilities, subsidised lunches and social events. ●


Ian Beveridge


Carl Schou


Capt. Kuba Szymanski


Gerardo Borromeo


Frank Coles


Dieter Rohdenburg

PHOTO: V.GROUP

Georgios Plevrakis, ABS

Endresen Øyvind, DNV GL

Virtue value shift

Stakeholders across the maritime value chain are driving a growing uptake of Environmental, Social and Governance policies focused on more ethical business practices, writes **Namrata Nadkarni**.

The public focus on the environment and climate change in particular, while largely aimed at political and regulatory change, is driving a change within the business world towards more accountability for their operations and ethical stances.

Many in the shipping industry may be reminded of the short-lived Corporate Social Responsibility (CSR) marketing wave which largely pre-dated the 2008/9 financial crisis, but this new Environmental, Social, and Governance (ESG) movement has a different flavour as it comes with backing from the financial community.

'ESG is not CSR; this is not about charitable work or good causes, however worthy,' says Georgios Plevrakis, director of Global Sustainability at ABS. 'It's about whether your business is positioned and prepared in terms of demonstrating all three principles to your customers, investors and to society generally,'

ESG policies are 'increasingly important to shipowners and their customers,' he continues. 'That means they are important for class societies and an increasing number of participants in shipping's value chain.'

These views are echoed by DNV GL Environmental consultant Øyvind Endresen, who authored the classification society's Maritime Forecast to 2050. 'ESG/sustainability efforts have changed from being a subject discussed by non-governmental organisations and academics to a key topic in boardrooms and financial newspapers,' he writes. 'We also expect that the IMO GHG (greenhouse gas) strategy and increasingly stricter environmental regulations will challenge the industry to identify and implement measures to further reduce their environmental footprint.'

Both class societies have seen an increased customer interest on how best to position themselves as ESG-integrated, and in fact Plevrakis warns that 'the elements of ESG will increasingly be addressed by financiers in our industry as investors are looking at these criteria to complete their due diligence'.

In fact, the shift amidst global financiers is well underway. For example, in November 2019 the European Investment Bank (EIB), the funding arm of the European Union, announced that it will stop funding fossil fuel (oil, gas and coal) energy projects from the end of 2021.

Other funding institutions have also followed suite, including US-based international asset manager BlackRock, which has announced it is to incorporate ESG information into investment decisions to help enhance risk-adjusted returns, 'regardless of whether or not a strategy has a sustainable mandate.'

DNV GL's Endresen points out that multiple players along the logistics lines have already started attributing value to good ESG practices, pointing to examples like the Poseidon Principles signed by major shipping banks and the fact that 'cargo owners and charterers have started addressing GHG emissions when selecting shipping vendors. In the future, it is likely that 'industry stakeholders will request the disclosure of ESG/environmental sustainability performance data in a manner that is both transparent and benchmarkable,' he predicts.

Despina Panayiotou Theodosiou, president of the Women's International Shipping & Trading Association (WISTA International) and ceo of Tototheo Maritime, echoes the view that following good ESG business practices, such as having a more diverse workforce, reap rewards.

'The maritime sector is changing more rapidly than ever before,' she tells Seatrade. 'Research funds and venture capital funds are emerging, that are looking for R&D projects that will decarbonise shipping and enable greater efficiencies with digitalisation tools. We need to start thinking differently, and if we employ the same groups of people, we will likely get the same kind of solutions, solutions that will no longer work.'

'No business is truly tapping into a total pool of potential employees if it deliberately stops parts of that pool from being employed,' she continues. 'Having more diversity means we have more people that are not stuck to traditions and pre-perceived ways of doing things and therefore could possibly envision something radical and new that could work.'

Progress, although slow, is tangible: the 2019 IMO World Maritime Day theme

Despina Theodosiou
WISTA

was 'Empowering Women in the Maritime Community' (see infographic) and many organisations, including the IMO itself, have signed agreements with WISTA to help create a barrier-free environment for women in the maritime workplace.

V.Group for one points out that although women make up only 2% of the global maritime workforce and 1% of seafarers, the gender split among its onshore workforce is 51/49.

While there is still much room to improve, with many critics warning that implementation of the social aspects are inadequate and the risk that the COVID-19 crisis may will lead to a degree of 'backsliding', others believe that the 'new normal' after the pandemic subsides might include a more ethical way of doing business. 'ESG principles could also be seen as an opportunity to demonstrate the positive story about shipping that so many in the industry have been calling for over many years,' concludes Plevrakis. ●

Cultural obstacles to leadership

While there are many successful initiatives to help women transition into leadership roles, Sanjam Gupta, director at Mumbai-headquartered non-vessel operating common carrier (NVOCC) Sitara Shipping, warns that it is not enough to appoint women to the roles without instigating the cultural change that will allow them to succeed at their work.

'Women don't often have access to leadership training, which hinders their chances to get into these leadership roles,' she tells Seatrade, adding that age and gender often intertwine to create an environment in which young women aren't taken as seriously as their older male colleagues, who are seen to be more experienced and may be dismissive of new commercial opportunities and cultural adjustments.

Older women can also adhere to entrenched culture and prevent female subordinates from rising to the top due to a perceived lack of opportunities for them in leadership – a phenomenon known as the 'Queen Bee syndrome'.

Gupta feels strongly that gender sensitisation training is necessary to

Sanjam Gupta

acknowledge unconscious bias and create a company culture that strives to overcome it. 'It's very important on both, ship and shore, to identify unacceptable behaviour and enforce consequences, so that in any situation, bystanders or those involved can call out unacceptable behaviour,' she believes.

Promoting gender diversity forms a bedrock for adopting wider ESG principles, Gupta concludes. 'Companies need to take these policies seriously, even in a downturn. Cutting these programmes when times are tough sends the message that these policies aren't essential, and a company culture remembers that.'


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IACS an 'unsung hero', says chairman Sharma

The International Association of Classification Societies has had a lot on its plate this year, as outgoing chairman **Arun Sharma** of Indian Register of Shipping tells **Shirish Nadkarni**.

Arun Sharma, executive chairman of Indian Register of Shipping (IRS), faced a particularly challenging year as chairman of IACS (the International Association of Classification Societies), even before the Coronavirus (COVID-19) pandemic came along. But his time in charge, which ends in early July, has left him more convinced than ever that IACS is an 'unsung hero in the shipping firmament' as it is 'virtually the technical arm of the IMO,' global regulator for maritime matters.

Top of the agenda when Sharma assumed IACS chairmanship were desulpurisation of shipping emissions in time for the International Maritime Organization's January 1, 2020 deadline, and then preparations for progressive decarbonisation in line with IMO 2030 and 2050 goals. But Sharma's own particular priority was encouraging shipping's greater adoption of data use.

'One of the main projects that I wanted to complete during my tenure was getting into a data-driven policy,' he tells Seatrade in an exclusive interview. 'In my opinion, a lot of shipping-related companies are far from digitisation. I wanted it done for IACS. A core group has been set up to work out what data is important for IACS, and what will be the output from this data. We need to collect this data, whether it be technical, plan, casualty or component failures.

'A lot of this data can bring to the fore privacy issues, such as where is my company in terms of approvals, what sort of accidents we have had, what caused them, and how the failures took place,' he continues. 'Some of this data a shipowner would not mind sharing in a very broad manner, without divulging identities, but some of it he may not want to share, on account of its being too private and personal. So the group will tackle the issues of privacy and intellectual rights, and look at what outputs are needed, what kind of data needs to be collected.'

Cyber security is another area where IACS has been active the past year, again with the view to creating 'a unified requirement across all classification societies.'

But all these developments have now been overshadowed by the clear and present danger of COVID-19 to the shipping industry and its workforce.

IACS has been liaising closely with other shipping bodies during the pandemic, Sharma reports, and 'setting up an interactive website on the IACS platform, where a number of owners are asking about relevant issues like the possible expiry of a certificate when they have not been able to carry out the mandatory surveys because of the travel restrictions. We have hyperlinks on the website where the other stakeholders become accessible to the owner to answer questions pertinent to them, and make constructive suggestions during this difficult period, which could last several months.'

As regards the problem of class surveyors accessing ships in the current situation of widespread lockdowns and travel restriction, Sharma relates that 'we have been advising our surveyors to take the history of the ship – which countries it has traversed through in the past few weeks, and the state of health of the ship's personnel. If they feel it is safe to board the ship, they are free to go ahead and conduct the survey.

'If they feel it is not safe for them to actually go on board,' he continues, 'they have been instructed to ask the Chief Engineer to examine the machinery concerned and give an honest report. If the class society can directly issue them an extension of the certificate, that can be done. Wherever you need the coming in of an authority like the Director-General of Shipping (DGS) in India, you provide the status, and give your recommendations – that the certificate should be extended.

'The idea is to provide as much help as possible to the shipowner without compromising on the health issues of all concerned. At the same time, we must provide an environment where safe shipping should continue to carry cargo at optimal efficiency.'

Sharma ends by extending his sympathy to seafarers who find themselves locked down on ships without the possibility of crew changes. 'This need not be an issue, because I can tell you that I personally have stayed on a ship for 21 months at a time,' he adds, quipping: 'if you are safe on a ship, at least you get your meals on time!'


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New players and ongoing innovation

Marcus Hand looks at some of the key developments in the Lion City's maritime business over the last 12 months.

Maritime Singapore moved into 2020 with what could be described as cautious optimism with its annual performance figures for its massive hub port in 2019 somewhat muted.

The figures reflected what had neither been the easiest year for shipping or the global economy as a whole. Singapore's container port, the world's largest transhipment hub and second largest boxport overall had grown by just 1.6% to 37.2m teu.

In the year ahead of the landmark IMO 2020 low sulphur fuel regulation the world's largest bunkering port saw sales volumes dip to 47.5m tonnes in 2019 compared 49.8m tonnes a year earlier. Vessel arrival tonnage was up 2.2% last year to 2.85bn tonnes.

The year also saw Singapore continuing to welcome new players to its shores attracted by the eco-system and business friendly environment the city state offers. These included OneBulk, a joint venture between three established German shipping companies – Bertling, Oskar Wehr and Nordic Hamburg.

OneBulk decided to site its new venture here as it was convinced by Singapore's value proposition and track record in the shipping industry. Dr Lam Pin Min explained in his speech at the Singapore Maritime Foundation New Year reception.

There was also newly established dry bulk freight operator Singapore Marine who Dr Lam said had sited their Asian operations in Singapore to capitalise on the country's comprehensive maritime eco-system. Last year also saw Britannia P&I setting up its Singapore branch office expanding on its existing loss prevention services to offer a full suite of P&I services to clients in the Asia – Pacific region.

The annual SMF New Year Cocktail was it turned out to be one of the few industry gatherings so far held this year as the coronavirus, COVID-19 pandemic was to sweep the world resulting in social distancing and closures of all but essential businesses.

At the time of writing Singapore is under what the Government calls a Circuit Breaker which sees most offices closed, and the vast majority of people working from home for an eight-week period. The country's shipping and maritime continues to operate as essential services, with the necessary safeguards for workers in place, including the ports, bunkering and ship repair yards.

Despite the impact of COVID-19 situation bunker sales volumes turned around in the first quarter of 2020 growing 5.4% sold to 12.72m tonnes compared to 12.07m tonnes in the same period a year earlier. The Maritime & Port Authority of Singapore (MPA) has also granted two new bunkering supplier licenses to Minerva Bunkering and TFG Marine, following a call for applications in December last year.

Under the terms of the licenses both companies will also be required to each operate at least two clean energy dual-fuelled bunker barges. Looking at the transition to IMO 2020 the MPA commented: 'Singapore continues to undergo a successful IMO 2020 transition to serve the needs of the industry during COVID-19 whilst maintaining its position as the global bunkering hub.'

Innovation also continues to be at the forefront of activities in Singapore ranging from the start-up eco-system and initiatives such as PIER-71 through to projects by established players in the market.

An interesting potential from established player is Keppel using technology from Keppel Offshore & Marine division to develop floating data centres. Keppel Data Centres recently inked Memorandum's of Understandings (MoUs) with Toll Group and Royal Vopak to study the feasibility of a floating data centre park (FDCP) and LNG-to-power infrastructure to support the centres.

PHOTO: MARCUS HAND

Singapore East Coast anchorage

Andreas Sohmen-Pao, chairman Singapore Maritime Foundation, speaking to the local shipping community

Preparing shipping hub for the future

Hong Liang Lee talks to Singapore Maritime Foundation chairman **Andreas Sohmen-Pao** about manpower and internationalisation initiatives.

The Singapore Maritime Foundation (SMF) is looking to continue its work with local and overseas partners to strengthen Singapore's position as an international maritime centre through its manpower and internationalisation initiatives, according to SMF chairman Andreas Sohmen-Pao.

Sohmen-Pao points out that the decarbonisation move for shipping is something SMF is positioning itself in order to support this ambitious global green target.

'In light of the industry's focus on decarbonisation, SMF will be leading an International Advisory Panel comprising senior industry leaders to identify strategies and actions to support this global objective,' Sohmen-Pao says.

'Decarbonisation is a pressing global challenge, and SMF is working with the community to ensure that Maritime Singapore is well positioned to address it.'

Embarking on digitalisation is also a means to ensure that Maritime Singapore can retain its competitive edge.

The upcoming Tuas Port is an example of how Singapore's capabilities as a global hub port can be augmented through innovation. When fully completed in 2040, the mega port will be the world's largest fully automated terminal boasting features such as automated wharf and yard functions, and full-electric automated guided vehicles.

'There is an increasing demand for skills in Information Technology (IT), data and predictive analytics to support this digital transformation. Collaboration and cross-sector knowledge sharing are critical for the continued success of maritime organisations in the digital era. The Circle of Digital InnOvators (CDO) network launched by MPA (Maritime and Port Authority of Singapore) in April 2019 will bring digital innovators together to champion the adoption of technology and innovation in the workplace,' Sohmen-Pao explains.

In today's rapidly changing landscape, having the right pool of talent becomes crucial.

The SMF has collaborated with the MPA to launch the Circle of HR InnOvators (CHRO) network in 2019 to boost the role of HR as a strategic partner in driving workforce transformation. Through this network, HR leaders can exchange best practices and insights, empowering them to build a competitive workforce to address challenges and grasp opportunities.

On talent development, SMF will be organising Kidzania's first-ever maritime-themed exhibition, to introduce children to the world of maritime through interactive gameplay and experiential learning.

The Maritime Singapore Connect (MSC) Office will also host the second run of the MSC Maritime Summit Case Challenge (MMSCC), together with Pacific Carriers Limited (PCL), PSA and Thome Group. Last year's event drew over 100 participants, of whom 75% were non-maritime students, strengthening the industry's outreach to a wide range of talents.

On education, MaritimeONE has witnessed an increasing number of female students receiving the scholarship, with the number of female scholars surpassing the number of male scholars for the first time in 2018. This reflects the success of the industry's collective effort to encourage young women to explore a maritime career, Sohmen-Pao says.

'There has been an encouraging increase in the number of scholars receiving the scholarships each year, with 43 MaritimeONE scholars awarded in 2019, the highest number since the programme's inception. Of these scholars, three are from non-maritime backgrounds, providing new perspectives'.

Since the inception of the MaritimeONE Scholarship Programme in 2007, a total of 384 scholars have been awarded more than SGD10m ($7m) in scholarships, with over 50 sponsors to date.

'SMF continues to encourage more maritime companies to participate as sponsors and invest in the next generation of maritime talent,' he concludes.

On the international front, SMF and Informa Markets will work towards organising the biennial Sea Asia 2021, Asia's anchor maritime and offshore event, which will gather thought leaders worldwide to discuss pertinent issues and to see the latest maritime products and technologies.


MARVEL HAWK
SUPPLYING
EXPERT SERVICES IN A
DEMANDING SEGMENT

Prime Minister of Singapore, Mr Lee Hsien Loong, together with Hana Romiza Muhamad Reduan, age 5, a PSA staff member's daughter, placing a torch on the grounds of Tuas Port

PSA in good position

Global terminals group consolidates operations in Singapore at the automated Tuas mega-port.

With paradigm shifts taking place in global supply chains and distribution networks, the maritime industry is facing three emerging trends, according to global Singapore terminal operator PSA.

The three emerging trends are the changing nature of cargoes, technology as both an enabling and disruptive force, and that cross-integration becoming a new reality.

'We are intensifying our efforts to create more varied transport options for supply chain stakeholders through our Cargo Solutions arm, harnessing technologies to move cargo faster and intelligently to facilitate more vibrant trade,' said a PSA corporate spokesperson.

'Other than solidifying our leading position in the port business, PSA is broadening our attention and exploring opportunities to create new value chain synergies to entrench the port of Singapore's position as a global node.'

In Singapore, PSA is looking forward to the completion of a consolidated mega Tuas Port which is under development over four phases. By the end of 2020, PSA will see the installation of the first batch of advanced port equipment at Tuas Port including Automated Rail Mounted Gantry Cranes, Double-Trolley Quay Cranes and Automated Guided Vehicles (AGVs). The first two berths are expected to be operational in the fourth quarter of 2021.

When fully completed in the 2040s, Tuas Port will be the world's largest fully automated terminal.

'We are currently conducting live operational trials of automation-related projects at the PSA Living Lab, located in Pasir Panjang Terminal. Technologies being evaluated at this testbed include AGVs and automated quay cranes, which will be used in Tuas in the future,' the spokesperson said.

'Concurrently we are also adopting data analytics and deep learning for our planning, operations and maintenance processes. The PSA Living Lab is an integral part of PSA's on-going programmes to develop innovative and cutting-edge technology solutions for existing terminal operations in Singapore, as well as Tuas Port.'

To augment and enhance smart port operations, PSA is collaborating with Singapore's Infocomm Media Development Authority (IMDA) to trial 5G capabilities for communication in Singapore.

In addition, sustainability efforts are ongoing as energy efficient buildings and equipment in Tuas Port will be powered via a smart grid designed with efficiency and resilience. The smart grid will allow the port's energy consumption to be better managed and recycled across peaks and troughs and reduce the incidence of power-related disruptions.

Consequently, frontlines roles are evolving with the adoption of port automation and technology, and PSA is reskilling its staff for new roles and job scopes.

PSA staff will learn skills to operate new equipment such as transit from operating single machines to being able to use cutting-edge systems to manage the operations of a range of equipment and automated machines. This requires different skill sets and a higher level of technological know-how.

'As the nature of our industry changes, it is important that this mindset change going on amongst our staff continues. We see them embracing new responsibilities, as well as expanding their skills and job scopes. As such, PSA is committed to engaging our staff – our most vital asset – and facilitating their learning by providing opportunities for continuous reskilling, upskilling and multi-skilling to be ready for the future and to take on new challenges,' the spokesperson said.

'This has been made possible with the strong support from our two port unions, the Singapore Port Workers Union (SPWU) and Port Officers' Union (POU), which have worked closely with staff and management to ensure the smooth and efficient operations of PSA Singapore.'

In Singapore, PSA handled 36.9m teu of containers in 2019, up 1.6% year-on-year, while PSA International moved 85.2m teu around the world, up 5.2% over 2018. ●

L- R: Nelson Quek, Head of Tuas Development, PSA Singapore, Tan Chong Meng, Group ceo, PSA International, Khaw Boon Wan, Coordinating Minister for Infrastructure and Minister for Transport, Peter Voser, Group Chairman, PSA International, Lee Hsien Loong, Prime Minister of Singapore, Ho Ching, ceo of Temasek Holdings, Fock Siew Wah, former Group Chairman, PSA International, Lam Pin Min, Senior Minister of State for Transport, Ong Kim Pong, Regional ceo Southeast Asia, PSA International

No stopping progress

Singapore Shipping Association explains how it is helping the industry meet the challenges of digital transformation.

The move toward digitalisation in shipping is a progress that can no longer be undone as the maritime industry, like most other sectors, have been impacted by technological advancement and an increasing pace of change, according to Singapore Shipping Association (SSA).

Caroline Yang, president of SSA, notes that the pace of change has quickened for the global shipping industry against the backdrop of rapid technological advancements in artificial intelligence, machine learning, robotics and Big Data.

'Digitalisation, decarbonisation and disruptions are challenges in the new decade. The topic of sustainability will increasingly take more focus,' Yang says.

'To create awareness and help our members better understand available emerging technologies and solutions, we formed a new Digital Transformation Committee (DTC) in July last year. DTC aims to help our members leverage on digital companies to improve their services for sustained growth in an increasingly digital economy,' she says.

SSA has also been working with and will continue to work with industry stakeholders to digitalise shipping and trading documents such as Bills of Lading, certifications and ship registrations. In October 2019, SSA inked a memorandum of understanding with Perlin and International Chamber of Commerce (ICC) to develop an advanced digital blockchain ship registration preparation system for international adoption.

Yang pointed out that one of the key success of why Maritime Singapore has been able to maintain and reinforce its position as one of the world's key maritime hub is due mainly to the strong alignment between the Singapore government and the local maritime community.

The Maritime and Port Authority of Singapore (MPA) takes a proactive approach in engaging and listening to the industry, and in turn SSA has delivered the pertinent and representative information.

'As key maritime stakeholders, our members have their views and perspectives on the challenges and development of the industry. I have been visiting members since becoming the president of SSA. I take pride that many of our members are actively involved in our various committees' work, not only for the sustained growth of the industry but also for Singapore's continued importance a global hub port and leading international maritime centre,' Yang says.


Caroline Yang

'I would like to see greater involvement of more SSA members in the respective committees and their initiatives. I believe that through such deep engagements, we can then truly be an effective voice for the maritime industry,' she adds.

Yang, who is also chief executive of bunker tanker company Hong Lam Marine, was appointed in mid-2019 as the first-ever female president of SSA since the association's founding in 1985. Yang started her career with Hong Lam Marine as its inhouse counsel in 1991, and has more than 25 years of experience in the shipping industry.

'The roles of women and their capacity to contribute, whether it is shore or sea-based are starting to be recognised,' Yang observes. MPA, for instance, also appointed its first-ever female chief executive, Quah Ley Hoon, in November 2018.

Yang notes that the IMO 2019 theme 'Empowering Women in the Maritime Community' has helped to raise the awareness of the roles and contributions of women in the maritime industry, helping to foster an environment for gender equality and for women to be groomed into leadership positions.

In Singapore, the city-state has seen pioneer female maritime leaders such as assistant chief executive of MPA Tan Beng Tee, SSA immediate past vice-president Lisa Teo, SSA's chair of legal and insurance committee Gina Lee-Wan, SSA's treasurer and vice president Katie Men, and president of WISTA Singapore Magdalene Chew.

'I see these as positive signs that we are increasingly recognising gender equality in shipping and certainly hope that such trends continue,' Yang says.

SINGAPORE MARITIME SERVICES GUIDE

The Singapore Maritime Services Guide is a free resource produced by the Singapore Maritime Foundation, a private-sector led organisation, which aims to develop and promote Singapore as an International Maritime Centre. The guide provides a one-stop directory of companies offering maritime ancillary services in Singapore.

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A shift to joint ventures in tanker management


Tanker at anchor

PHOTO: MARCUS HAND

Anglo-Eastern Ship Management has a large, well established presence and reputation in the tanker sector which the company runs from its Singapore office.

The tanker business is helmed by Surendra Dutt, chief operating officer (Tanker Division) for Anglo-Eastern a well-known figure in local shipping circles, who has spent the vast majority of the last 25 years in Singapore.

Speaking to Seatrade Maritime Review recently Dutt observed a trend in the market towards joint ventures in the tanker sector. Anglo-Eastern in Singapore has three joint ventures including Diamond Anglo Ship Management and the most recent AEX LNG Management with Exmar Ship Management providing third party management for LNG carriers.

The latest joint venture will provide clients with newbuilding planning and supervision, ship management, crewing, and training through Anglo-Eastern's training centres around the world.

Speaking when the joint venture was announced last year Anglo-Eastern chairman Peter Cremers said: ' I look forward to combining Exmar's unique competencies in the LNG space with our crewing and training solutions in order to offer our customers a platform for LNG ship management that carries the same depth and strength as we have in our other tanker segments.'

Dutt sees the joint venture model as one that works better for larger owners. 'I am beginning to wonder if that is a model some of the bigger owners like to take up because then they have a little bit of stake, and maybe a say in how they run ships. But I don't think it could be a model for the smaller owners, I think it will work for the larger owners that have 30 plus ships to outsource,' he said.

'But I can see a trend because we've had a lot of enquiries from our clients to set up these kind of arrangements.'

The arrangement sees the joint venture operating as standalone company with its own Document of Compliance (DOC) but able to take advantage of lower costs by using shared services from Anglo-Eastern.

On the LNG side of the business the owner having a stake can be particularly important. 'I think on the LNG side the charterers, the oil majors, are quite keen that owners have a stake in the ship management rather than outsourcing it entirely, so maybe that's another driver for the LNG,' Dutt said.

Anticipating future challenges

Bernhard Schulte Shipmanagement (BSM) in Singapore has enjoyed a good couple of years but managing director Raymond Peter is already looking forward to, and preparing for, future challenges.

The move towards the implementation of IMO 2020 at the start of the year saw a movement of owners in the region both selling less fuel-efficient tonnage, and buying new, larger tonnage, especially in the tanker sector.

'We saw a little bit more movement in owners outsourcing to managers especially with the uncertain times over the last six months,' Peter told Seatrade Maritime Review in a recent interview.

'So it was a good year for us in terms of bringing in new tonnage. The last two years has been good for BSM Singapore. Moving into 2020 and beyond I shared with our team how do we gear up at looking into things like zero carbon fuels and the ability for us to be prepared for that.'

The issues that owners are facing are both near and long-term, with the next few years the shift to LNG being the major challenge, but over the longer term is the question of what fuels will be used as LNG is also a carbon-based energy source. 'Some of the owners have approached us to ask looking about types of fuel, and size of vessel to make the fuel viable,' he said. It is not just the fuel type that owners have to consider but also the infrastructure for delivery, an issue BSM has encountered first hand with LNG as a fuel.

Raymond Peter

In the nearer term an influx of LNG-powered vessels over the next few years brings with it crewing and training challenges.

The requirement for LNG trained engine crew will see seafarers moving up from the LPG trades for higher wages, and seafarers from the chemical trades in turn looking to move onto working on LPG vessels. 'You'll have this movement in the next few years, so as companies running LPG vessels and chemical tankers how do we gear up for this?'

A key part of meeting this challenge is cadet training. 'We are creating extra berths on all our vessels, so we can start to train the crew onboard. We have approached the training centres to recognise our training onboard for LPG and LNG,' he explains.

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Capt. Rajesh Unni

Rising interest amongst operators

Rajesh Unni explains how Alpha Ori Technologies is enabling seafarers to focus on their core competencies.

Alpha Ori Technologies (AOT), a start-up co-led by Synergy Group's ceo Rajesh Unni, is looking to install its SMARTShip system on 65 vessels, in addition to around 40 ships that are already using the Internet-of-Things (IoT) platform.

SMARTShip provides managers with performance dashboards and alerts, a range of administrative tools and new options for data analysis.

'We have tested this [SMARTShip] with multiple organisations and gotten fairly positive responses, so we are putting this system onto ships of some industry giants, lining up another 65 ships that have signed up and waiting for the execution phase now,' Unni says.

Unni explains that the introduction of such a IoT platform enables onboard operation of multiple systems with varying degrees of autonomy. 'In a nutshell, it allows people onboard to focus on their core competencies which are engineering, problem solving, navigation, how to effectively load and discharge particular cargoes, how to use fuel, optimise power consumption – to better utilise the asset.'

Unni expects a lot more ships to sign up to SMARTShip this year as the industry has embarked on an irreversible path of digitalisation.

In addition to SMARTShip, AOT is continuously researching on new technologies such as sensor technology, and security protocols in the face of rising cybersecurity threats.

In January this year, AOT was awarded ISO 27001:2013, a globally recognised standard that certifies the establishment, maintenance and continual improvement of a company's Information Security Management System (ISMS).

The ISO certification confirms that AOT has put in place a system of technical, administrative and physical controls which secure the company's own information, and customer and employee information, within the context of overall business risks.

AOT maintains an operations centre in Singapore to monitor vessels equipped with its software, and that the Singapore operations of both AOT and Synergy will continue to grow. 'Can Singapore provide us with this opportunity? Yes, without a doubt. While the cost of doing business in Singapore may be high, it is compensated by higher productivity and offers of differing skill sets,' Unni says.

He adds: 'The work at AOT is part of our DNA at Synergy. Our businesses are not just about counting dollars. We invest a lot into R&D, seeing that the digitalisation journey for maritime has just begun and there's no end in sight.'

One of the biggest benefits of incorporating the use of technology onboard ships is the optimisation of fuel consumption. By optimising fuel consumption, the carbon footprint of the vessel can be effectively measured and the entire power management onboard can be monitored.

'We have gone beyond the point on whether people have a choice to do this or not. The issue here is whether it is viable due to the cost of capturing carbon,' Unni says.

'However, technology alone will not solve the carbon emissions problem. You also need processes and people who understand how to use the technology in the best possible manner in order to reap the most sought-after results, and to tweak processes to fit in with the use of technology.'

Unni welcomed the IMO 2020 rule and future regulations on restricting carbon emissions, and eventually to a zero emissions future for shipping. 'We have messed up enough if you look at the carbon concentration in the atmosphere. So, we should press the pedal and not look at emissions reduction as just a PR exercise,' he says.

'The new emissions rule is an opportunity for the industry to step up, and prove that we are not an industry that is always reactive to regulation but also proactive in our concern and wanting to make a difference to the global warming situation.'


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An attractive hub for Chinese investments

Singapore remains and will continue to be an ideal hub in attracting investments from Chinese companies, in view of the island-state's sound legal system and stable financial position, according to lawyers from Incisive Law, an alliance partner of Ince & Co.

Singapore has for many years remained an important platform for Chinese entities that wish to bring their operations outside of mainland China, and Incisive Law in Singapore has been capturing these opportunities to service the growing Chinese businesses.

'We have set up the China Practice group in Singapore because we have seen, especially in shipping and trading, lots of investments coming from Chinese entities into Singapore,' says Loh Wai Yue, director, head of China Practice, Incisive Law.

'Many of the Chinese entities have businesses across sector areas such as trading and shipping. In Singapore we have seen trading by them in oil and gas, and the likes of CNOOC, Sinopec, PetroChina are all here in a big way, while their headquarters remain in Beijing,' Loh notes.


Loh Wai Yue

'The Chinese entities have a lot of contracts governed by English law-Singapore arbitration or Singapore law-Singapore arbitration – and that's where we are able to turn our expertise from the dispute side to assist these Chinese companies, including in their day-to-day risk management,' he said.

Loh, who had spent the last seven years working in Beijing, was appointed the head of Singapore's China Practice in August 2019. Loh is a litigator specialising in shipping, commodities and energy disputes, and is qualified to practise law in Singapore, England and Wales, and Hong Kong.

From his experience, Loh observed that Chinese entities in Singapore are 'proud' to be identified as a Singapore company due in part to the autonomy that they can enjoy

as a subsidiary in terms of building up their businesses, compared to what they can do in mainland China.

'We try to ensure we have lawyers who not only are good technically but also with a firm understanding of geopolitics and the way the Chinese entities, especially state-owned, operate and how we can best service their subsidiaries while their headquarters in Beijing can rest assured that we know what's going on,' Loh shared.

Knuckling down and getting on with it

Anyone working in the offshore marine sector in the last few years has been used to dealing with tough times and 2020 with the COVID-19 pandemic and an extremely volatile oil price has been no exception.

Singapore's M3 Marine is an established player in the offshore marine broking and consultancy business.

The company is helmed by Mike Meade, a well-known and respected figure in the Singapore maritime and offshore community, who very much calls the market the way he sees it. 'In short it's knuckling down, rolling sleeves up and getting on with it, every dollar you earn in today's market is hard earned,' Meade told Seatrade Maritime Review earlier this year.

A major oversupply situation remains in the offshore vessel market, which was overbuilt during in the boom that ended in 2014, and many owners in the sector continue to operate under distressed conditions.

On the brokerage side of business given the current market Meade says it remains tough, but the consultancy side of M3 Marine's business is seeing more positive results.

He says the technical marine consultancy business is "doing ok", while its relatively new remote inspection although seeing work is very difficult to make money in. 'You're not going to make any money in it yet, there's no margin improvement in it,' he states.

The best performing part of the business is valuations.

'Valuation business is very robust because as everyone is in distress so it means the financial institutions are looking at their loan to book value constantly. If you look at the brokerage and sales markets you aren't seeing any arms-length transactions it's all distressed [assets] so any sales we are involved in at the moment inevitably involve a bank,' Meade explains.

'So the banks take control and then they want to sell. Its mitigation – how much of our loan do we have to write off?' The write-offs from loans done in the 2012 – 14 period can substantial in the range of 50%-70% in some cases.

Any recovery for offshore marine now looks to be pushed to 2021 so for M3 Marine it will be another year of knuckling down and getting on with the job.

PHOTO: MARCUS HAND

Offshore construction vessels at anchor off Singapore in March 2020

Avetics looks forward to wider use of drones

Avetics Global, a drone startup founded in Singapore, is looking to 2021 to be the year that more ship operators will employ the use of drones for inspection.

Zhang Weiliang, founder of Avetics, observes that the use of drones in the shipping industry is still at its infancy stage and many shipowners are only at the exploratory stage.

'There are still many drone services that are not fully developed, and drone delivery is one of them. For the industry to fully develop we will need more flexibility on permits to fly. In 2021, I foresee that more shipowners will include drone inspection as part of their regular workflow,' Zhang says.

Zhang pointed out that the biggest advantage of drones is their ability to help users save time. The time saved can be as much as a few days, which is a lot for a ship operator or charterer.

'For some form of cargo hull inspection, it actually eliminates the need for inspectors to go onboard the ship. Given the coronavirus situation, this is a huge plus point where the inspector can reduce interaction with ship crew,' he says.

Zhang and his team are working hard to get the word out there to more shipowners who have not consider the method of deploying drones for inspection. 'Many shipowners do not realise that we can now complete partial inspection during the time that the ship is anchored in Singapore doing its usual activities with little disruption to its chartering time.'

The challenge, however, remains that the deployment of such unmanned aerial vehicles requires permit with a specific time and location, and ships are often not on time and anchorages can change at the last minute, Zhang notes.

In January this year, Avetics received the Lloyd's Register (LR) certification to conduct surveys using Remote Inspection Technique (RIT). The RIT is to be done on the structure of ships and mobile offshore units via unmanned aerial vehicle (UAV) and attending surveyors for close-up inspection.

Avetics is the first Singapore-based drone company to go through LR qualification process and obtain the certification.

'What make us unique is our ability to engineer solution to cater to industry-specific problems. For example, we have built a crawling robot to inspect a tunnel in one of the oil and gas sites using our knowledge of photogrammetry via drones,' Zhang shares.

Routing, navigation and fleet performance

Fleet performance, fuel savings and efficiency are ever more important both from a cost and an environmental performance point of view.

Playing a key role in such fleet performance initiatives is weather routing software such as the services provided by StormGeo, which has a major presence in Singapore and the Asian region.

Søren Andersen, ceo of StormGeo explains: 'Singapore and Asia is the premier hub for shipping operations, and many of our customers have significant operations in the region. To maintain a high service level, we are currently expanding our operations in Singapore.

'We currently have a fleet performance centre there and are building a team of Route Analysts who are working to support local maritime clients. This is very important to meet regional demands.'

StormGeo provides solutions across three interconnected verticals – Routing Advisory Services, Planning & Navigation and Fleet Performance Management.

'Each of these verticals help masters and


Søren Andersen

onshore officers to communicate and visualize external and internal data such as weather forecasts, vessel speeds and operational conditions in order to achieve fuel reductions, save time, ensure safety and regulatory compliance,' Andersen says.

Looking at the current year StormGeo and its customers are clearly facing many unexpected challenges but both support and development continue as usual.

'2020 is turning out to be a very challenging year, and it is very important that we continue to operate 24/7/365 to support our clients businesses in this difficult time. But at the same time, we will keep developing new solutions and improve our current products and services to provide excellent solutions to our customers,' Andersen explains.

'Right now, we run the company remotely, and that is working without hiccups or interruptions. We also conduct external virtual meetings to ensure our communications with customers will not be affected, and offer good solutions for our clients to operate their shipping activities remotely. Hopefully, we will get over the Corona challenge quickly, so that we can move on into a better business climate.'

In terms of developing new products the company has its own development teams for each of its verticals and also recently acquired Nautisk, which strengthening digital charts and publications offering as well as route planning and navigation.

StormGeo also partners with other organisations to aid its development. 'We also joined force with DNV GL to add ECO Insight to our product portfolio in fleet performance management which offers a stronger technical performance management solution. Our integrated solutions allow data sharing throughout the different departments of the shipping company for achieving different purposes,' Andersen explains.

Colombo port, showing Jaya Container Terminal

Desperately seeking extra box capacity

Sri Lanka is looking towards long-term growth in container throughput with expansion plans under consideration at the ports of Colombo and Hambantota, reports **Shirish Nadkarni**.

Despite restricted maritime growth last year partly due to the April 2019 church bombings, Sri Lanka like all other countries has been hit by COVID-19 this year. But optimism abounds that a new government – to be elected when, and if, the postponed parliamentary elections take place on 20 June – will be able to steer the country on a more positive course.

Port of Colombo saw growth for a fourth successive year in 2019, though it was far less spectacular than it had been in 2018. Colombo produced throughput of 7.23m teu, up 2.5% on the 7.04m teu of 2018.

Of the three terminals at the port, the deepwater facility of CICT (Colombo International Container Terminals) with alongside draught of 18mtr had an excellent year. The facility, run by China Merchant Holdings (CMPort), saw throughput of 2.95m teu, an 11.3% rise on the 2.65m teu of 2018.

The other two terminals produced flat results, mainly due to draught and capacity constraints – with the state-owned JCT (Jaya Container Terminal) ending 2019 with 2.30m teu, and the privately run SAGT (South Asia Gateway Terminals) with 2.08m teu, up 1.5% year-on-year.

Capacity constraints remain a limiting factor on traffic at Colombo, says Romesh David, ceo of SAGT, with addItion of CICT's deepwater capabilities providing only limited relief. 'Since there is no further capacity at Colombo, we are going to remain flat for the next two years,' he adds.

One suggestion mooted is that four modern new post panamax quay cranes that had been ordered for JCT should be diverted to the dormant East Container Terminal (ECT), so that they can attract services which currently bypass Colombo due to the lack of berths.

'The Gotabaya Rajapakse government would not like to fall into another debt trap. It has signed a Memorandum of Association with India and Japan, and needs to honour that, so it could be a three-way consortium running ECT,' says Iqram Cuttilan, coo of Aitken Spence Maritime.

A new project called Colombo Port City, due to be built on 560 acres of reclaimed land next to the port, is also expected to attract both local and overseas investment.

The government is equally clear about making the southern port of Hambantota work. The entire port has been bought by the Chinese, specifically for commercial purposes.

For the moment, only car carriers dock at Hambantota. No gantry cranes are operational, so the port cannot yet be used for containers, though the eventual plan is to divert some of Colombo's box traffic there. However, upcoming bunkering facilities are attracting attention, as are repairs to ships that do not need to divert from the main East-to-West sea route.

'Our Hambantota project, launched in December 2019, has grown at a much faster rate than we thought,' says DV Abeysinghe, md of Colombo Dockyard. 'We have 35 people working there on minor shiprepair jobs. Hambantota has become much more accessible after the completion of the highway from Colombo,' reducing travel time to around 200 minutes.

'CMPort will make Hambantota work,' maintains SAGT's David. 'They have done it before. I think, at some point in time, it will attract Indian investment when Indian industry sees the logic in using Hambantota. Chinese and Indian cargo is moving in both directions., so, at some point, emotion needs to be taken out of it!'

SAGT to invest $50m in equipment upgrade

South Asia Gateway Terminals (SAGT), the first privately owned and operated container terminal in Sri Lanka, is now two-thirds of the way through its initial 30-year concession at the Port of Colombo and is marking the occasion with a new round of investment.

'We are going through a significant phase of reinvestment in our terminal,' says SAGT's affable ceo, Romesh David. 'Starting last year, and into the next two years, we will be investing slightly over $50m in a combination of upgrading existing equipment and procuring new equipment.'

SAGT is buying two new twin-lift super post-panamax 20-across cranes from ZPMC and expects delivery in Q1 2021.

'We will then have five twin-lift cranes on the quay,' says David. 'Since we only have 940mtr of berth length and are also limited by our span and our draught, we are not upgrading any of our existing quay cranes. We will be forced to stay at 12 quay cranes, after getting rid of two of the older cranes.

'But we are conducting some exciting trials on hybrid conversions with a Japanese company, Yaskawa. If that works, we will cut our emissions and be greener.'

SAGT is also refurbishing its entire fleet of RTGs (Rubber Tyred Gantry cranes) with a Singapore-based jv company between Mitsui and Portek International of Singapore having won the global tender for 25 units worth around $14m.'

These developments come in the wake of what was essentially a flat year for SAGT, which ended 2019 with 2.08m teu, a growth of barely 1.5% from 2018. The terminal contributed 28.7% of the 7.23m teu throughput of the Port of Colombo.


Romesh David

The terminal's traffic was slightly up in the first two months of the current year by around 4% year-on-year, but then COVID-19 struck from March onwards with a negative impact that it is still too early to fully assess.

Colombo Dockyard looks to float engineering subsidiary

Before the April 2019 spate of bombings Colombo Dockyard plc (CDPLC) had high hopes for the year and was readying a cable-laying newbuild for sea trials and commissioning in May, recounts the yard's md D V Abeysinghe.

'We had also been discussing with some European owners about building some high-end bulk carriers, and the deals were to be signed in May. But the bombings finished our plans, and the client went to China for the building of seven bulk carriers. Our drydocks were empty for months. We therefore ended 2019 with a loss.'

The yard had been expanding its infrastructure at the time and trying to attract more shiprepair work. High volumes of shipbuilding had earlier occupied the drydocks and prevented the taking up of too many repair jobs. But after April, the repair business went down to zero.

The yard had no option but to improve its marketing capabilities. CDPLC executives met several owners in India and Japan, some of who agreed to work with the yard on the repair side in the second half of 2019. Marketing was also conducted in Europe, and the yard expected fresh orders in the residual portion of 2020.

'We are looking at providing engineering services to overseas clients,' says Abeysinghe. 'We have the capacity and an excellent design office for detail engineering. We hope to float an engineering subsidiary soon and solicit clients, some of them have already been contacted in Europe and Japan.'

The yard is also looking to utilise the services of people who would be retiring from CDPLC. With the yard's standard retirement age an early 55, 'we can contractually employ such people and utilise their rich 30-35 years of experience,' says Abeysinghe. 'The young people who replace them would be useful to absorb the new technologies that keep coming in at a very fast pace.'

The company's Hambantota project, launched in December 2019, has grown at a much faster rate than initially anticipated, and since January this year CDPLC has around 35 people working there on minor shiprepair jobs.

Strong growth in container volumes at CICT

Had it not been for Colombo International Container Terminals (CICT), the Port of Colombo's containerised cargo performance for 2019 would have shown a flat line. CICT's contribution of 2.95m teu, an 11% improvement on its 2.65m teu in 2018, amounted to 41% of Colombo's 2019 throughput of 7.23m teu.

Indeed, CICT, which operates a 3m teu capacity terminal at Colombo's South Harbour under a 35-year BOT concession, is the first Sri Lankan greenfield project of China Merchant Port Holdings (CMPort), one of the world's largest port operators with a vast global network.

'Ours is the first and only deepwater terminal in South Asia capable of handling the largest vessels afloat,' says Catriona Jayasundera, CICT's head of Commercial & Marketing. 'Our alongside draught allows us to handle vessels with more than 22,000teu capacity; and we have had leviathans like the 20,568teu Milan Maersk calling.'

The joint venture company, in which CMPort holds 85% of the equity, with the remaining 15% vesting with the Sri Lanka Ports Authority (SLPA), is a blue-chip listing on the Hong Kong stock exchange.

Catriona Jayasundera

'One of the key projects that we concluded last year was the conversion of all our rubber-tyred gantry cranes (RTGs) to electric,' adds Jayasundera. 'This resulted in an overall 40% reduction in carbon emissions at CICT, something we are very proud about.'

HIPG's ambitious plans for Hambantota

Tissa Wickramasinghe

In late 2018, Hambantota port was sold to China, in order to reduce Sri Lanka's massive debt to that country. The Chinese promptly moved one of the island nation's most experienced port professionals, Tissa Wickramasinghe, from their container facility in Colombo to Hambantota, where he was placed in charge of re-energising the 2010-built port which has lain largely dormant apart from car traffic which Colombo does not handle.

'At the moment, the port is handling cars and general cargo; and we intend to go into the bunkering business almost immediately,' says Wickramasinghe, designated coo of Hambantota International Port Group (HIPG). 'Our bunkering operation will be run by the world's largest oil manufacturer, Sinopec; and we are confident that it will do well.'

For the year 2019, the company handled over 400,000 vehicles and 200,000+ tonnes of cargo. It has also just completed the refurbishment of its tank farm and has an LPG unit, which is currently handling movement of bulk Liquefied Petroleum Gas.

'Hopefully, by the third quarter of this year, we will go into container operations,' says Wickramasinghe. 'We are looking to complement the Port of Colombo, which is currently undergoing a capacity crunch for deepwater vessels. We are keen that no services should be turned away, since it is near-impossible to lure them back.'

HIPG is also looking at LNG projects for the future, in collaboration with a private investor who is currently in discussions with the Sri Lankan government for supply of LNG-based power. The investor will also be looking at an LNG storage facility for import, export or transhipment.

Hemas Maritime

Last year was significant for Hemas Maritime when its joint venture with Taiwan's Evergreen Line, for whom it had been handling agents in Sri Lanka for the two previous years, came to fruition. It also saw the start of Sri Lanka's largest offshore wind farm project where it is heavily involved in construction.

'We now have four companies in the maritime sector,' recounts executive director Preethilal Fernando. 'Apart from the Evergreen joint venture, Hemas Maritime handles all operations other than liner shipping.

'Of our other companies, Mazu Shipping looks after NVOCC container operations and Far Shipping handles feeder services along the East coast of India and Bangladesh, as well as some non-liner operations.' The group also has logistics company Spectra, a jv with McLarens Group's GAC Sri Lanka, in the Transportation sector.

The latest project under Hemas Maritime is a huge 100 MW windmill power project, situated at Mannar, in the northern province of Sri Lanka. It boasts 30 towers, spread over a three-acre property.

'We have a working relationship with an Indian group, NTC Logistics, which is famous for wind blade adaptors and trailers, and is able to transport project cargo weighing 400-600 tonnes with special cranes.'

Preethilal Fernando

McLarens produces strong results despite challenging environment


Rohan De Silva


Mahesh Kurukulasuriya

One of Sri Lanka's largest diversified conglomerates, McLarens Holdings has established a dominant presence in the fields of petroleum and energy, manufacturing and distribution, property and strategic investment, leisure, maritime and logistics.

'Our Maritime division remains at the heart of our operations, and contributes to over half of the Group's turnover,' says group chairman Rohan De Silva, an active Formula car racer and shuttler, who has been representing Sri Lanka in international veterans' badminton for several years.

'The year 2019 was challenging, yet successful, despite the repercussions of the Easter Sunday attacks. We experienced a considerable drop in overall revenue in marine operations due to several piracy attacks on the global seas, project delays and cancellation of vessel calls in the tramp market, and subsea services.'

The company has continued to be the market leader in the liner industry, handling over 3m teu in 2019, that constituted over 40% of the 7.2m teu handled at Sri Lankan ports. The group offered a range of ship and ship ancillary services, including husbandry, subsea, chandling and tramp.

'The current year is going to be even more challenging for us, since the maritime sector remains one of the largely affected industries as port restrictions and quarantine measures bring international trade to a standstill,' says Mahesh Kurukulasuriya, md for group company GAC Sri Lanka.

'As regulatory bodies impose port lockdowns, restrict members on-boarding vessel, and embarkation/disembarkation to and from vessels, our ability to continue husbandry services, marine and subsea operations would be directly hampered during the pandemic. The lockdown measures have also reduced the global demand and supply of bunker fuels.'

Despite the stress on bunkering operations, the McLarens group has proved itself to be a pioneering presence by establishing its own offices in Hambantota port, which is expected to become a regional bunkering hub due to its strategic location.

For the ongoing year, however, the group expects to be tightening its belt. 'We foresee companies going in for several cost reduction measures to rebound from the global economic shock, amidst increased fuel costs or installing scrubbers in compliance with IMO-2020 low-sulphur regulations,' says Kurukulasuriya. 'Although the future looks unpredictable, we anticipate a return to normal in the maritime sector sooner than other industries.'

Walkers Subsea expands to provide underwater repair services

A 60% share of the subsea services market in Sri Lanka shows how far Walkers Subsea, a subsidiary of McLarens Holdings, has progressed in the four short years since its inception in 2016.

'Walkers Subsea was originally incorporated to provide hull cleaning, propeller polishing and CCTV inspection services, but has now expanded into providing underwater repair services,' says McLarens Group chairman Rohan De Silva.

'A passion for innovation is deeply engrained in our values, and our dynamic organisation structure has helped by closing market gaps and securing special projects. Through fostering a culture of stability, speed and flexibility, we have been able to adapt to new challenges and opportunities.'

With the company's subsea services having established a strong presence in the major ports of Colombo and Galle during the period until 2018, Walkers Subsea expanded during 2019 to serve the ports of Hambantota and Trincomalee.

'We have a strong team of professional divers and master mariners who possess the operational expertise to handle the most complex marine engineering services, with emphasis on quick turnaround time and cost efficiency,' says De Silva. 'The team utilises Piccard brush cart systems from Greece and is backed by an International Commercial Diving Consultant specialised in underwater hull cleaning.'

During Q4 2019, the firm undertook the cleaning operations of the first ever LNG vessel in Sri Lanka, the first oil stain removal operation at Galle, and the very first cleaning of a cruise vessel.

'In the opening weeks of 2020, we carried out underwater inspection for a seismic vessel at Galle port, whilst handling several underwater cutting and welding jobs,' says De Silva.

'Planning ahead, we expect to further capitalise and strengthen our business acumen to unlock the benefits of the digital revolution. We want to demonstrate to our subsea and other customers across the sectors we operate how more can be achieved through investing in the latest technology.'

Maritime division shores up Aitken Spence's sagging fortunes


Iqram Cuttilan

It has not been a particularly memorable year for Aitken Spence, one of the largest and well-diversified business groups on the island. Fortunately, the maritime sector came to the group's rescue, after its hotels and tourism sector was embattled in the wake of the Easter bombings last year.

'Our hotels and tourism sector was affected quite drastically, and occupancy levels in our beach properties were poor,' says Iqram Cuttilan, director and coo of Aitken Spence Maritime. 'We had seen an improvement in this sector after December, but then, the Coronavirus crisis hit us hard.

'Fortunately, the maritime sector bailed us out, and our overseas investments did quite well. By the end of the ongoing year, we think the maritime sector would be the one providing the highest level of profitability to the group.'

The group's port management operations in Fiji and Mozambique have been doing fairly well, and Fiji has been able to attract some more transhipment traffic, although there has been a dip in volumes due to the economic downturn.

'We are trying to gradually computerise the operations of Fiji so that efficiencies can be improved, even though it is a small port and operates only with mobile cranes and ship's gear; not gantry cranes,' says Cuttilan.

There are challenges to be considered at the Port of Colombo, including serious capacity constraints, as also the changes in services and cargo patterns of mainline operators, in addition to the IMO-2020 low-sulphur fuel regulation.

'The congestion at Colombo port has reached critical levels, and we have been talking to our government to move more swiftly on East Terminal, where nothing has happened for the past five years,' Cuttilan laments.

The major problem that the port faces is that, when shipping lines think about calling at Colombo, they look for berths, which are at a premium. The container yards do have capacity, but it is of little use unless berths can be offered.

Meanwhile, the government may be thinking of leasing out the undeveloped West Terminal site on a public-private partnership basis, believes Cuttilan. 'But until the elections are held, and the ministers are in place, nothing is going to move.'

Prudential Shipping to focus on service delivery portfolio

Rishantha Mendis

For diversified business house Prudential Shipping, the past 12 months have been 'tough for our maritime services' profitability being badly compromised by the cut-throat rates offered by competing agencies,' says executive director Rishantha Mendis.

'The Easter [2019] bombings affected most sectors in the country, especially the freight market, which was virtually dead for an entire month. We did get some project cargo surveys from some overseas vessel owners, since they wanted some local associates in whom they had confidence. We had to focus on our service delivery portfolio, to stay relevant.'

There has also been a huge adverse impact on Sri Lankan imports in the first quarter of 2020, since sailings from China were heavily reduced by the Coronavirus issue.

'This year, we have been forced to cancel all our planned trips to trade shows and exhibitions, and have been unable to even visit our principals, since they are also in quarantine,' says Mendis. 'The chances of trade shows happening in the foreseeable future appear quite bleak.'

Nothing much has been happening on the oil and gas exploration scene, either. Returns on investments in this sector have been badly hit worldwide.

'Even in Sri Lanka, nothing much will happen until the Parliamentary elections are over,' says Mendis. 'I feel this sector will struggle for the next five years, and those that get into it will have to do so with caution.'

Chinese oil giant Sinopec had announced earlier this year that it would start bunkering operations soon in Hambantota. Prudential, along with other agency players in Sri Lanka, will be keen to see what ancillary services they can provide, along with the bunkering.

The group's Travel division, Helanka Vacations, was heavily affected by last year's bombings and then by the ongoing Coronavirus epidemic.

'We are happy that there was only one negative COVID-19 incident, and the lady was cured, so we are promoting Sri Lanka as a safe tourist destination,' says Mendis. 'But we have to see how long it takes for international air travel to be restored. I feel it will take a couple of years for tourism in Sri Lanka to recover to a normal level.'

CINEC the jewel in the Ceyline crown

Ceyline cadets

Gradually, over the 35 years since its inception in 1985, the Ceyline group of companies has established itself as the fourth largest diversified maritime group in Sri Lanka.

'Our group, apart from handling manning and crewing, and having a maritime academy, has ventured into several branches of the maritime services industry over the past couple of years,' says one of the original founders, Capt. Ajith Peiris, executive chairman of the group.

Acquisistions have included GFS (Global Feeder Shipping) of the UAE, and also local company Califolink Logistics.

Another venture is interior conversion engineering of containers through a tie-up with Starlink One, a 30-year-old company that fabricates racks and hangers within containers for readymade garment exports,' relates Chathura Lakindu, md of group company Ceyline Holdings.

'Our most recent venture is opening up a container yard at Batalawatta, between Wattala and Kandana on the way to Katunayake airport,' together with two other partners.

Capt. Ajith Peiris

But the jewel in the Ceyline crown is its maritime training institution, CINEC (Colombo International Nautical & Engineering College), which offers the gamut of training courses, plus several non-marine programmes.

'We cater annually to over 21,000 students, who follow a range of over 175 educational and training programmes of differing time lengths, stretching from short-term courses of a couple of days to long-term courses lasting several months,' says the executive chairman's son, Mevan Peiris, designated group director.

'We have residential hostel facilities at Malabe for around 110 on campus, and for another 100 just outside the campus. We have a central ship simulator to allow the cadets hands-on training of working in a ship.'

The college has branches in Colombo, Trincomalee and Jaffna; and recently opened two overseas branches in Fiji and Seychelles. CINEC is managing the national maritime academies of those countries.

'We are also looking to open a branch in Hamburg,' says Ajith Peiris. 'In addition, we have JARU, a joint academic research centre with Dalian Maritime University (DMU). Its aim is to promote and undertake research publications in various academic disciplines practised by both CINEC and DMU.'

Mercmarine on growing reputation of Lankan seafarers

Sri Lanka has made giant strides as a recognised provider of quality seafarers – responsible, confident and good people to work with.

'The first time I experienced this was in the last quarter of 2018, when I attended a conference at which I was the only Sri Lankan, among very few Asians,' says Capt. Rohan Codipilly, coo of Mercmarine group of companies which has been able to improve its market share in the crewing department.

'A Danish shipowner walked up to me and told me that Sri Lanka had been able to provide good quality seafarers, and he was keen on recruiting some. It made me proud to be a Sri Lankan provider of seafarers who were accepted the world over.

'I may be wrong, but I understand that India uses its resources to only train Indian seafarers and doesn't take in other nationalities. Sri Lanka is better in this respect, in that we have capacity available for non-Lankans, whether European or Asian.'

On the flip side, however, the global recession has had a negative impact on the group's prospects.

'Many owners and ship managers are adopting a wait-and-watch policy,' says Codipilly. 'The way oil prices are sinking, the future looks distinctly murky. Unless oil prices are at a certain minimum level, we cannot expect to do well in our manning and crewing efforts.'

Mercmarine is currently running more than 60 maritime-related courses, including STCW courses for certificates that have to be renewed periodically. 'At any given time, we have around a hundred students in Colombo, and 80 in Galle,' says Codipilly.

'Our initial courses are residential at our Galle facility, but after the trainees have gone to sea, their advanced training is done at our Maradana facility in downtown Colombo. So, in a sense, we have the best of both worlds.'

There is a third area that has been growing in the last few years, where principals would like seafarers to be particularly trained in special areas, such as handling inter-personal relationships. Codipilly wistfully reflects that he would love to see this kind of requirement grow – which might just happen if the current pandemic focuses attention more on seafarers as 'key workers' with specific personal needs.

Capt. Rohan Codipilly

Walkers Shipyard on the lookout for strategic investor


Dr Sarath Obeysekera

Three years ago Walkers Colombo Shipyard (WCS) had embarked on the building of two 10-tonne bollard pull tugs and a barge, although only one was ever finished due to lack of funds.

'We wanted to establish our name as Sri Lanka's second shipbuilder, and have been doing shiprepair as well,' says WCS's md Dr Sarath Obeysekera, a former head of Colombo Dockyard.

'However, until our 1,200tonne shiplift is completed, we have not been able to take ships up. Over the past one year, we have been docking ships, using a new German-design hydraulic shiplift purchased from Titan of South Korea.'

The yard has in the past built tugs, barges and landing craft, and continues to repair expensive yachts and pleasure craft, one of which had just been fully refurbished and is awaiting delivery to the owner.

'Actually, if we get more work, we can dock as many as seven ships in the pier,' says Obeysekera. 'We need to earn $1m per month to be comfortable, but this cannot be done only through shiprepair work. So we are trying hard to win building contracts.'

'Business has recently begun to pick up,' continues Obeysekera. '(Malaysian company) MTB Walkers, which owns 90% of the shares in our shipyard, has been complaining of indifferent returns on its investment, and has been looking for an investor to buy up this shipyard. If I can get a strategic investor now to take care of a $5m bank loan and take over the company's equity, it would be ideal.'

Star Lanka adversely affected by Middle East tensions

The final two quarters of 2019 were profitable for Israel's ZIM Lines. Even though volumes did not come up to expectations, the profitability was marginally better than it had been in 2018, which had been an outstanding year for the company, with an over-all increase of 22% in the areas of export, import and transhipment.

'Most of our vessels were sailing on long contracts from the Far East to the US, and so, were profitable in 2019,' says Capt. Anirban Banerjee, md of ZIM's agents, Star Lanka.

'But this year has been a huge challenge, with China's output reducing, and therefore, the frequency of sailings to the US also going down. We had an independent service going to the US, but that was merged with 2M, so there has been a drop in our volumes to the US.'

Star's profitability this year could be adversely affected by the ongoing tensions in the Middle East and the crude oil price war that has 'certainly brought down the price of automobile fuel, but made exploration operations unviable, leading to a bloodbath in the offshore sector and repercussions on the tanker market, as well,' says Banerjee.

'On the bunkers front, the mandatory requirement of low-sulphur fuel has made its price rise, and there is a shortage of stocks. We are at the in-between stage when onshore storage tanks are not ready, and scrubbers are expensive to install aboard ships, which often lack the space that they require. I think we are in for a hard time.'

Anirban Banerjee

X-Press Feeders


Arjuna Hettiarachchi

X-Press Feeders (formerly Sea Consortium) has stayed leader of the pack in terms of feeder lines serving Sri Lanka for the past couple of decades.

The Singapore-headquartered operator last year carried 750,000teu – more than double that of second-placed BTL (Bengal Tiger Lines) and third-placed OEL (Orient Express Lines) of the Dubai-based Transworld group.

'We have a reputation to protect and have maintained our frequency and service levels now for several years,' says X-Press Feeders md Arjuna Hettiarachchi.

'We continue to service India's entire East coast, southern India and the Indian West coast, going all the way up to Karachi in Pakistan; and also Africa. We have a daily service on 2,500teu vessels to South India, a weekly service to the West coast, and three sailings a week to India's East coast and Bangladesh.'

However, there is real worry about prospects for the rest of 2020.

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Three vessels being handled at Jebel Ali terminal

Fluctuating oil prices and uncertain global outlook

Peter Shaw-Smith reports from the UAE on how the region's ports and shipping industries are coping with business amid the COVID-19 crisis.

Like the rest of the world the Middle East region has been battling the COVID-19 pandemic. In the United Arab Emirates, for example, a two-week 24-hour lockdown was replaced on April 26 with nightly only curfews, coinciding with the onset of Ramadan and reduced daily activity, at the same time as the postponement of Expo 2020 Dubai was announced.

The region was hit by a double whammy when the COVID-inspired travel restrictions and near-global lockdown worsened a dramatic slump in oil prices sparked by the OPEC+ partners' initial failure to agree oil production cuts. By the time they did, storage capacity around the world was brimming with stocks of cut-price oil just as global demand evaporated.

Saudi Arabia's main shipowner and operator Bahri moved quickly to charter in more tanker tonnage for that country's storage and transportation needs, while it has also embarked on a massive fleet replacement plan including a first newbuilding order at new Saudi yard IMI, in which it holds an ownership stake (see later article). Previously, the company had ridden the strong tanker market of late 2010/early 2020 to post a massive 133% year-on-year rise in net profits to SAR419.2m ($111.5m) in Q1; it has since donated SAR10m to the country's Ministry of Health to help fight the pandemic.

Before the COVID-19 crisis struck, the region's leading port operator DP World had announced in February what it called 'robust' financial results for 2019, seeing revenue grow 36.1% and adjusted EBITDA by 17.7%, delivering profit attributable to owners of the company, before separately disclosed items, of $1.328bn, up 4.6%. Revenues were $7.68bn.

Revenue growth of 36.1% was driven by acquisitions, including P&O Ferries (UK), Topaz Energy & Marine (UAE), and two terminals in Chile (Puerto Central and Puerto Lirquen), as well as the full-year impact from Continental Warehousing Corporation (India), Cosmos Agencia Maritima (Peru) and Unifeeder (Denmark), and the consolidation of Australia region, it said. Like-for-like revenue increased by 2.3%, driven by 16.0% growth in non-container revenue, reflecting the company's increasing diversification.

'We have continued to make progress on our strategy to deliver integrated supply chain solutions to cargo owners and have focused our efforts on building end-to-end capabilities for several verticals including the Automotive, Oil & Gas and FMCG industries,' stated DP World group chairman and ceo Sultan Ahmed Bin Sulayem. This strategy will be pursued in the group's new role as a private company, after a decision to delist its equity from the Nasdaq Dubai stock exchange.

However, the global trade outlook is now bleak, in the short term at least, due to supply chain disruption caused by the COVID-19 outbreak. Previously the group had said 2020 priority would be on integrating recent acquisitions to consolidate profitability but this strategy may now have to be modified given recent developments – such as the severe financial difficulties experienced by P&O Ferries due to an almost total cessation of passenger ferry traffic in Europe.

In the Middle East, DP World had acquired Topaz Energy and Marine, a marine logistics services and solutions provider to the global energy industry, thereby extending its footprint into the offshore sector. Topaz is present in four key operating sectors: Caspian (64 vessels), MENA/Subsea (20), Africa (13) and Solutions (20). This acquisition too could be negatively impacted by ant continuing oil price slump.

Meanwhile, at its flagship port of Jebel Ali in Dubai this year the group was due to launch a highly innovative new container storage and stacking project, along with industrial engineering specialists SMS Group. High Bay Storage, an intelligent storing system using a rigid framework of container racks, was due to enter service for the first time ever anywhere in the world at the port's Terminal 4, in time for the Expo 2020 Dubai world fair. However, possible postponement of that event together with a general slowdown in global trade suggests such new developments at Jebel Ali may be placed on hold.

Indeed, beyond reporting 2019 performance, terminal operators across the region are keeping quiet for the moment, until a clearer picture of the devastation to supply chains caused by the coronavirus emerges. ●

Shipping and COVID-19: a class society's view

'COVID-19 has affected daily activity across the world, as governments seek to mitigate the impact of the virus,' relates Capt. Tony Field, vp Middle East & Africa, Marine & Offshore, Lloyd's Register (LR). 'The areas of the shipping industry that are most affected are the cruise, ferry and offshore sectors. Bulk, tankers and container vessels will be required, even as demand decreases, but will strengthen once more when the wider industry and society recovers – helped by shipping's well-known resilience.

'The situation is fluid and assumptions should not be made about lies ahead,' he continues. 'LR, as with many others, including governments, needs to review the latest data on a daily basis to identify next steps. Collision Regulations state that decisions should not be made on scanty information.'

As regards vessel lay-ups, Field says that 'any vessel could be laid up for any length of time and there are prescribed procedures for this. In recent weeks, we have welcomed

Capt. Tony Field

many more requests for remote surveys as more of our customers explore the capability of remote technologies. If a company has the right procedures in place, I would not expect many technical or maintenance issues to arise, provided the vessel is well looked after during its lay-up period.'

While a class society like LR normally prefers face-to-face contact with clients, it is currently observing WHO (World Health Organization) guidelines restricting social interaction and obliging people to work at home, Field continues. 'Like many other classification societies, LR can perform most tasks outside the office at any given time. Due to the nature of their work, our surveyor workforce can access our systems remotely, whether that's onboard a ship, at a shipyard, or at home. This is a challenging time and our routines have had to change, but we remain committed to supporting our clients, and have introduced work plans and practices to ensure business continuity while prioritising safety.'

Turning to the wider Middle East situation, Field reports that 'most ports are making every effort to keep operating within restrictions imposed. Vessels are coming into the Gulf, loading and discharging cargo, and sailing. I believe it is imperative that ports remain operational. There are challenges, such as spare parts for vessels which rely on the supply chain. LR is continuing to work with clients and attending vessels where possible, although inter-country travel remains an issue.'

Khalifa Bin Salman Port keeps vital supply lines open

APM Terminals Bahrain reports that its Khalifa Bin Salman Port (KBSP) facility at Hidd has witnessed stable growth across its various operations in the 10 years since it began operations. Container volumes have grown by 54% to reach around 430,000teu annually, ro/ro traffic by 27%, and general and bulk cargo by 87%.

Last financial year it experienced a slight dip in revenues of 0.1% to BHD38.2m ($101.4m), while profits were off 2.6% to BHD10.2m. As a share of revenue, container services fell from 48% in 2018 to 46% last year but still account for the quasi-totality of the country's box shipments.

Susan Hunter, the terminal's first female ceo, was appointed in February 2019, taking over from Mark Hardiman, who in turn has become ceo of Salalah Port in Oman. She earlier served as global head of APM Terminals' Operational Excellence Programme, responsible for implementing corporate strategy across a comprehensive global

Susan Hunter, md, Khalifa bin Salman Port

port and integrated inland service network, based in the UAE.

Before that, Hunter served in a number of senior management positions with Maersk, focusing on business transformation, growth and development, and also held senior board positions with Maersk Pakistan and the Suez Canal Container Terminal company in Egypt.

'Working as partners and idea generators with the government entities and various business sectors, we continue to grow KBSP as a major regional hub for trade and transportation, [to] enhance access to key markets such as The Kingdom of Saudi Arabia and the northern Arabian Gulf, and to provide a wide-range of world-class marine services to all vessels calling at the port,' says Hunter.

At the beginning of April Bahrain's Ministry of Transportation and Telecommunications (MTT) confirmed that KBSP continued to be fully operational during the COVID-19 crisis for all traffic except cruiseships, all the while 'implementing strict health and safety measures to limit the spread of coronavirus infection.' The port was ensuring 'fast and efficient delivery of all shipments,' the MTT added, including essential supplies and enough food items to keep Bahrain stocked 'for the next six months.'

BGT adds deepwater capacity at Umm Qasr

Basra Gateway Terminal (BGT), run by International Container Terminal Services, Inc (ICTSI) of the Philippines, put two new berths into operation at Umm Qasr Port in Iraq in Q4 last year, allowing it to handle container vessels with capacity up to 14,000teu.

'This is the start of a new era in Iraq's port industry,' BGT ceo Phillip Marsham said on the occasion of the inauguration of the new berths. 'As Iraq's economy continues to grow, it is imperative to create the necessary port capacity for the future.'

Enrique K. Razon Jr., ICTSI Chairman and President (centre, fifth from left), formally opens BGT's two new deep-water berths, part of its US$250m second-phase investment programme for its Umm Qasr port. Joining him are Dr. Safaa Al-Fayyadh, Director General of the General Company for Ports of Iraq - GCPI (7th from the left) and Chief Atheal Abid Ali Salman, North Port Director, Umm Qasr (fourth from the left)

With an expanded capacity of 900,000teu per year, BGT is a key constituent of ICTSI's portfolio, which comprises 30 ports and terminals worldwide. In April 2014, ICTSI signed a contract for 26 years with General Company for Ports of Iraq (GCPI) to operate, develop, and expand the container handling facilities at Umm Qasr at berths 19, 20, 21, and construct three new berths at berth 25, 26 and 27. The new expansion is understood to have involved berths 25 and 26, at BGT East.

Earlier development involved construction of Berth 27, adjacent to the new berths, with the three now offering a combined continuous berth length of 600mtr. Design depth alongside Berths 25 and 26 is 14mtr and three new gantry cranes, each with an outreach of 56mtr and able to handle up to 21 rows of containers, have been installed on the quayside.

'ICTSI's completion of our multi-phase $250m investment programme highlights our commitment to Iraq and our readiness to meet the challenge of providing much needed, brand new, port infrastructure and handling technology,' said Enrique K. Razon, chairman & president, ICTSI.

'We are pleased to lead the way for Umm Qasr to serve higher capacity container vessels, up to and including the so-called 'New Panamax' class (14,000teu), and as a result to open the door for cargo importers and exporters to benefit from substantial scale economies.'

Tug project sets Abu Dhabi Ports apart

Ramora tug bow-quarter

Abu Dhabi Ports is to work closely with Canadian tug design specialist, Robert Allan Ltd, in the development of the world's fully unmanned autonomous commercial tug which will be operated by the port's maritime service division, SAFEEN. The agreement, made official at the signing of a Memorandum of Understanding in London recently, envisages the development of a fleet of remotely controlled unmanned tugs capable of autonomous operation.

Abu Dhabi Ports Group ceo Capt. Mohamed Juma Al Shamisi, commented on the agreement. 'We are engaged to provide smart and innovative digital solutions to the marine trade and port community, and to our valued customers. This agreement marks another qualitative addition to our digital armoury that will enhance performance efficiency, productivity, transparency and safety, as well as reduce costs.'

Mike Fitzpatrick, Robert Allan's president and ceo, said: 'We are excited to cooperate with Abu Dhabi Ports in this initiative, which provides us with an optimal opportunity to develop the world's first fleet of remotely-operated tugboats for the commercial sector. The unique aspect of this project is the active participation of all the various stakeholders in Abu Dhabi and the UAE, which should ensure that we can progress smoothly from construction of the vessels to commercial operations.'

The tug and workboat sector lends itself to digital technology development and the adoption of new fuels including LNG. Typical tug operation is confined to harbours and inshore waters where fuel can be readily available and tug and service vessel operation centralised. However, there has been little incentive to explore tug technology or fuel development in a region where traditional marine fuels are widely available and cheap.

An earlier project in which Drydocks World built the first of six planned LNG-fuelled tugs faltered. The first vessel was designed and built but has been available for sale for some time.

Planned new disposition of Jeddah Islamic Port after RSGT wins concession to operate North Container Terminal

Saudi Arabia rejigs box terminal awards

Saudi container throughput last year rose 2.7% to 8.87m teu and saw a shuffling of liner transhipments calls between different ports, while the Saudi Ports Authority (Mawani) has also recently granted important new terminal concessions.

In April, Saudi Global Ports (SGP) won the right to exclusively run container terminal operations at Dammam Port in Saudi Arabia after it was awarded a new Build, Operate and Transfer (BOT) agreement.

In a deal that was signed remotely due to the coronavirus outbreak, Mawani said the 30-year BOT agreement involved investments exceeding SAR7bn ($2bn) and was a key plank of the National Industrial Development and Logistics Programme (NIDLP).

A joint venture of the kingdom's Public Investment Fund and Singapore-based PSA International, SGP is to embark on a modernisation programme to transform the port into what Mawani called 'a mega container hub,' more than doubling terminal capacity to around 7.5m teu on completion. The project would provide more than 4,000 job opportunities in the port and logistics sector, Mawani said.

'The continuous developments in Saudi ports [are the result of] national efforts to achieve goals and pillars of our country's ambitious vision to promote sustainable economic development and raise competitiveness,' said Eng. Saleh Al-Jasser, Minister of Transport and chairman of Mawani.

Dammam is Saudi Arabia's main eastern seaboard gateway and is sorely in need of debottlenecking. It is linked to the capital's Riyadh Dry Port, which handles around 500,000teu a year.

As the incumbent at Dammam's Terminal 2, SGP officials told Seatrade in January that they were 'very optimistic' about wresting the concession to manage Terminal 1, until now operated by Hutchison Ports Dammam, thereby creating a single, unified operation at the port.

The new concession at Dammam comes hard on the heels of the successful bid by Red Sea Gateway Terminal (RSGT) to take over management and operations at North Container Terminal (NCT) at Jeddah Islamic Port (JIP), where it won a 30-year concession in December. A few weeks earlier, RSGT officials had indicated to Seatrade that Mawani wanted to consolidate the number of operators at Saudi ports.

After a slow 2018, JIP last year saw an improvement of 7.8% to 4.4m teu, based largely on the success of RSGT, the port's busiest terminal, where throughput increased 24% to 1.94m teu. Transhipment was up 26% to 956,640teu while imports and exports also grew by more than 20% each.

RGST, a subsidiary of Saudi Industrial Services Co. (SISCO), has now significantly expanded its operations at Jeddah by effectively bolting the NCT onto its existing facilities as of April 1.

The new agreement calls for $1.7bn of investment in infrastructure, equipment and technology by 2050. The expanded terminal, covering an area of 1.5m sq mtr, is set to increase annual container throughput capacity to 5.2m teu by 2023, rising to 8m teu by the end of the concession. RSGT has signed an Islamic loan facility worth SAR1.54bn ($410m) with Banque Saudi Fransi and Al Rajhi Bank, to help it move ahead with the redevelopment plans.

'This carefully planned programme of growth and investment will firmly establish RSGT as the largest logistics gateway, and the busiest container terminal, in Saudi Arabia, and on the Red Sea,' said RSGT ceo Jens Floe.

Gulftainer unit Gulf Stevedoring Contracting Co. (GSCCO) had been the earlier incumbent at NCT but seems to have lost out through Mawani's desire to amalgamate the two separate, yet contiguous, terminals into a single operation.

Nearby West Coast facility King Abdullah Port (KAP) saw some of its liner transhipment cargo transfer to RSGT, its total container throughput falling 12.2% to around 2m teu last year. The Kingdom's first privately owned and operated port attributed the decline to market conditions such as 'current tensions in trade relations between China and the US, together with a decrease in transhipment operations caused by recent changes in shipping [line calls]. Several freight... companies are undergoing ship adjustments and development operations in order to conform with new regulations and systems that will be applied this year in Emission Control Areas,' it said.

However, import container volume did rise by 7.2% to 203,670teu last year, and KAP also enjoyed a large jump in bulk and general cargoes, which more than quadrupled to 2.98m tons, compared to 689,000 tons in 2018. In addition, 85 cargo ships docked in the port in 2019 compared to 57 in 2018, reflecting 'the port's key role in activating the Saudi logistics and maritime trade sector [and] increasing the competitiveness of the Kingdom,' the landlord, Ports Development Company, said.

'King Abdullah Port's development plan

King Abdullah Port

is proceeding at a steady pace and it is set to consolidate its place among the leading ports globally,' it added. 'The port's advanced facilities and proximity to a bonded and re-export zone and logistics park offer clients world-class logistics support to enable them to achieve their desired growth.'

Over on the Gulf coast, King Abdul Aziz Seaport in Dammam was another container facility that saw strong container traffic growth with throughput rising 14.4% to 1.82m teu, Hutchison Ports Dammam and Saudi company MACNA, which are to jointly operate the container terminal there until the handover to SGP, which boasts the first remote controlled semi-automated cranes and first automated gate technology in the kingdom.

Other ports in Saudi Arabia include Jubail, which has seen export containers average 586,000teu in the last three years, as well as, Yanbu Commercial, Jizan, Diba, Yanbu Industrial, Jubail Industrial and Ras Al-Khair, which largely cater to non-containerised cargoes, such as petrochemicals and aluminium.

HEISCO continues to explore new market sectors

Despite a crowded ship repair market in the region resulting in 'highly competitive' pricing, Kuwaiti yard HEISCO reports that it manages to secure a high occupancy rate year-round thanks to its 'strategic location' at the end of the Gulf and 'solid international customer base.'

Its strategy is to keep expanding activities and opening new business lines to serve different sectors, thereby enabling high demand in one to compensate for slower business in others. The company says that in each sector it aims for 'investment in resources, development of strategic plans, maintaining highest technologies, renovation, continuous training, market surveys, business development, marketing, cost efficient services, customer satisfaction and wise management.'

In particular, HEISCO is a leading service provider to Kuwait's oil & gas industry, having successfully completed several multi-million-dollar construction, maintenance and fabrication contracts for the country's upstream and downstream sectors, working closely with Kuwait National Petroleum Company (KNPC), Kuwait Integrated Petroleum Industries Company (KIPIC), and Kuwait Oil Company (KOC).

Recently, HEISCO has secured main contract for construction of 11 KV elevated ESP area substations for KOC, and it now also enjoys a long-term contract with KOC for the maintenance, repair and dry-docking of its marine equipment as part of what it describes as an ever-closer cooperation with the client.

KOC marine fleet covered includes not only small vessels but also CALM Buoys, a type of rotating single point mooring system. HEISCO has previously carried out maintenance of CALM buoys, for various clients such as Al-Khafji Joint Operations, KOC and Chevron KSA, and recently constructed and delivered its first complete newbuild unit for KOC.

CALM Buoy delivery ceremony

With regard to future oil & gas developments HEISCO says it is eagerly looking forward to participate in upcoming major construction projects, including 'Booster Station upgrades, Jurassic Production Facilities, and a Gas Sweetening Facility.' It also aims to become part of Kuwait's ambitious renewable energy projects, as well as to explore new possibilities in the rest of the Middle East, especially Qatar, Bahrain and Iraq.

Recently, HEISCO has executed and completed several projects for major and international clients, including dry-docking and repair of a number of vessels for Kuwait Oil Company, dry-docking and repair of a number of vessels for Kuwait Fire Service Directorate, and emergency repair of US Army vessels.

At presstime the yard was carrying out collision repair of the products/chemical tanker Golden Sirius for New Ocean Shipmanagement, plus various other ship repair works.


Dubai Festival City

PHOTO: LLOYD'S REGISTER

Dubai to host ICMA

The Middle East is to welcome participants to the International Congress of Maritime Arbitrators (ICMA) for the first time, in early 2022, after the Emirates Maritime Arbitration Centre (EMAC) successfully led Dubai's bid to act as host during the proceedings of ICMA XXI, held in Rio de Janeiro in March.

EMAC's delegation, headed by chairman and secretary general Majid Bin Bashir, stressed the benefits of the UAE as a preferred jurisdiction for alternative dispute resolution, helping to make the UAE the first Middle East country to be chosen to conduct the event since ICMA's inception in 1972.

'[This is yet] another testament that the maritime fraternity has confidence in EMAC's services,' said Bin Bashir, expressing his thanks to Abu Dhabi Ports (AD Ports), Dubai Ports World (DP World), Abu Dhabi National Oil Company (ADNOC), Dubai Maritime City Authority (DMCA), and others to support the bid.

'From its first day, EMAC has contributed to the growth of the maritime sector through its arbitration and mediation services, to the benefit of the wider Middle East.'

Until the COVID-19 pandemic, EMAC conducted a successful two-year series of breakfast engagements, to help concerned parties learn more about the fruits of a solid framework for finding effective agreements to maritime conflicts.

In February Mark Lakin, senior associate for marine and international trade at Stephenson Harwood, explained how the UAE was host to a range of complex maritime claims and disputes. As the volume of disputes increased, so the maritime community needed to understand how to best navigate legal processes involving maritime arbitration, court proceedings, ship arrests and attachment proceedings.

Richard Briggs, EMAC vice chairman and executive partner of Hadef & Partners, Dubai, told Seatrade that the body was continuing to provide full services to the local and regional maritime community in the wake of the COVID-19 global outbreak, and sought to continue to grow the business this year and next.

'Obviously, 'virtual arbitration' makes life challenging for everybody, but it doesn't stop us from doing arbitration, nor ensuring that awards get issued. Other than that, EMAC staff have a complete online system..'

Vanessa Welch, senior manager, EMAC, said the winning bid to host ICMA XXII had lent credence to the idea that, although the UAE, unlike enforced seats of dispute resolution such as London, remained an optional jurisdiction, it was continuing to gain traction in the effort to promote its offering for arbitration as a neutral jurisdiction.

Majid Bin Bashir

'The courts at the Dubai International Financial Centre and Abu Dhabi Global Market function in English. The international maritime community is starting to recognise the value that offers. We are showcasing the UAE as a viable jurisdiction – and plenty of international firms have displayed faith in us,' she said.

'From EMAC's point of view, COVID-19 has not affected our ability to provide case management support. We were established in 2017, and from Day One, we saw technology as a business enabler. Operationally, it has been business as usual, with somewhat of a change. Although we are working at home, we took such a setup into consideration from the beginning. Everything is in place, and we are now making it accessible to the rest of the world.'

Oman Drydocks – installing scrubbers on for four Oman Shipping VLOCs

PHOTO: ALAN THORPE

Most Middle East yards work on as virus takes heavy toll

In the first weeks of January, Gulf shipyards were anticipating a buoyant year. Routine repairs and surveys were to be supplemented by fuel-related retrofits and ballast water treatment installations. For some, offshore oil, gas and renewable construction projects were also generating substantial revenue streams.

Just a few weeks later, most yards are working, but at much-reduced levels. Deemed a vital industry in Dubai, for example, shipping is excluded from the 24-hour lockdown. Workers, invariably migrants housed in large accommodation blocks and taken by bus to their places of work, discovered that their mid-April cuts had failed to raise prices special permits for these journeys. Almost all shipyards in the Middle East rely on cheap migrant labour from the Indian subcontinent and elsewhere in Asia.

In parts of the UAE, some workers have been given the opportunity of taking their annual leave early but that presents them with the significant challenge of finding a suitable flight at an affordable price. Meanwhile, if they do succeed in returning to their wives and families, they face uncertainty over whether or when they will be able to return. If they do, they will certainly have to undergo a period of quarantine. And this for months to come.

Since we have no idea how long this situation will last, we have chosen to look at the outlook for yards before the virus struck. Of course, it is inevitable now that many surveys, scheduled repairs and new construction projects will be postponed; some may well be cancelled. And the impact of the oil price crash – another uncertainty as OPEC+ heavyweights discovered that their mid-April cuts had failed to raise prices that could lead to both conventional and renewable energy projects being pulled.

Scrubber and ballast water installations have been underpinning revenues at Oman Drydocks, part of the government's logistics organisation, Asyad Group, and now combined with the activities of Oman Shipping. The yard recently completed Alfa Laval ballast water installations on four very large ore carrier sisterships on bareboat charters to Brazil's Vale Corp. The four ore carriers were part of an 11-ship package for which Oman Shipping planned scrubber retrofits. Seven Aframax tankers were due to have installations between March and July.

Meanwhile, managers at Drydocks World (DDW) were fielding a large number of enquiries on scrubber retrofits and ballast water installations. About half of 40 scrubber contracts had been completed by the end of February, according to reports in Ship and Offshore Repair Journal, while about 40 ballast water systems had been installed, out of a total of about 70 contracts.

2020 was expected to be a positive year, with offshore energy providing a healthy income stream. Projects under way include three energy contracts on a floating storage and offloading unit (FSO), a floating production, storage offloading unit (FPSO), and a floating storage regasification unit (FSRU). The turret mooring system for Equinor's Johan Castberg field development is also nearing completion.

On renewables, DDW is in the middle of a contract with Petrofac and TenneT to build the topsides for the 1,500MW Hollandse Kust Zuid wind farm in the North Sea. It will provide electricity to the Netherlands national grid and is due to reach full capacity by 2023. The first time a topsides like this has been built in the Middle East, the 3,500-tonne unit is due for completion in 2021.

In Bahrain, ASRY has embarked on a major investment and modernisation programme to raise efficiency and assist in customer retention as competition in the region continues to ramp up. The yard, which has undergone a corporate restructuring and is now a Bahrain state enterprise, is in the process of benefiting from seven separate investments including the latest types of welding machines, new cherry pickers, LED dock lighting for night work, GPS equipment tracking, machine shop upgrades and a digital quality control system.

Paul Bartlett

Third-party business will be important for Saudi's new shipyard

First projects under way at Saudi mega-yard

The first rig and shipbuilding projects are already under way at International Maritime Industries (IMI) in Saudi Arabia, and the first rig maintenance, repair and overhaul (MRO) has also recently been completed. Although the $5.2bn facility is still under construction within the King Salman International Complex for Maritime Industries and Services at Ras Al Khair on Saudi's Gulf coast, IMI is working with its own shareholders as well as third parties so that operational activities can start, the company's vice president of business development, Julian Panter, has revealed.

The first deals include a VLCC ordered by Saudi Arabia's national carrier, Bahri, last September. This is the first of 52 ships which the company, a 19.9% shareholder in IMI, has committed to build there over the next ten years through an offtake agreement. This first vessel is being built at Hyundai Heavy Industries in South Korea which holds a 20% IMI stake, and is providing a basis for the first group of recently graduated Saudi apprentices to gain hands-on training and experience.

Meanwhile, following the signing of rig purchase agreements, IMI booked orders for two Le Tourneau Super 116E jack-up drilling rigs from ARO Drilling, a 50:50 Saudi Aramco Valaris Companies joint venture, in January. Through a subcontracting arrangement between IMI and Lamprell, an oil, gas and renewable energy construction company with a 20% shareholding in IMI, the two rigs are being built at Lamprell's rig construction yard in Hamriyah, UAE.

Julian Panter

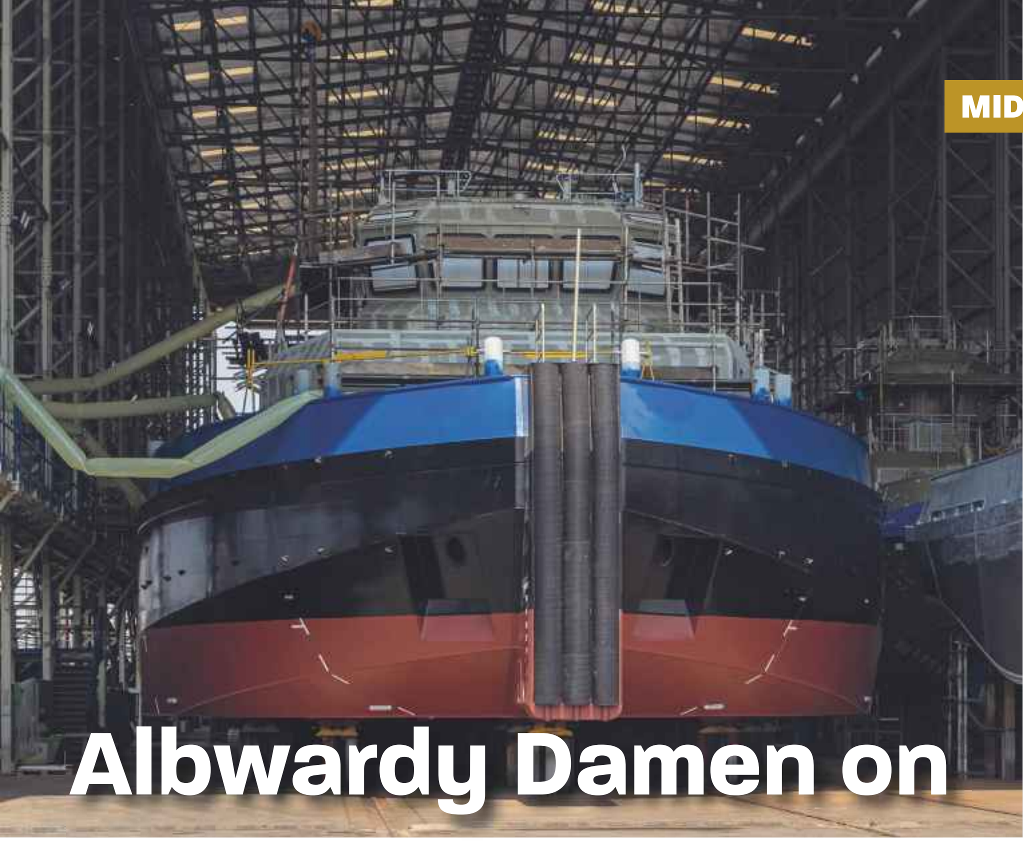
Once again, Saudi apprentices will be based there for hands-on training during the rig construction process. So far, the first year's intake of 700 apprentices have graduated across a range of engineering disciplines including welders, fabricators and pipe-fitters. A similar number is expected each year – the Saudisation process is a high priority for IMI chief executive, Mr Fathi Al Saleem.

IMI also completed its first MRO on an SAR201 jack-up drilling rig in March. This was undertaken for ARO Drilling utilising a pre-signed master services agreement with Dammam Shipyard, part of the Al Blagha group of companies. IMI's fresh Saudi graduates were also in attendance during this six-week project which, Panter said, was completed safely and on time.

With the first of four zones – Zone D, for rig construction – likely to be commissioned early in 2021, and three other zones for shipbuilding, offshore support vessel (OSV) construction and rig/ship repair to follow soon thereafter, it will not be long before the vast complex is fully operational. Although the local market will be very important, focused initially on the requirements of the largest shareholder, Saudi Aramco (40.1%) and the country's national carrier Bahri, Panter is keen to stress that the shipyard's executives will also be looking to the international market when all of the four zones have been commissioned.

He revealed that the local market might take up about 40% of the shipyard's capacity in the future. However, that will still leave a significant volume of capacity for other business. There is a clear differentiation between offshore energy projects and possible shipping business, Panter explained. In the first category, there is potentially a huge volume of work available from within the region and collaborative arrangements similar to the one with Dammam Shipyard are likely, he said.

However, it will be necessary to look further afield for other third-party business in a shipping context, Panter said. European shipowners generally have been identified as a key market, with Greek owners in particular likely to feature in the shipyard's future marketing initiatives. When it is fully operational, the shipyard complex should prove to be a unique facility with the capability of building and repairing ships, rigs and OSVs. But it will not commence operations from a standing start: collaboration with shareholders and partners will make sure of that.



The first super-shallow draft Shoal Buster, left, has been snapped up

Albwardy Damen on a roll prior to virus

Albwardy Damen, a joint venture between the Dutch Damen shipyard group and Albwardy Investment, a UAE-based group, finished 2019 on a strong note, with a promising outlook for 2020. When the Board met for its first meeting of the year, there was no sign of COVID-19 and the oil price was still in the $60s, said Lars Seistrup, managing director, in a recent interview.

However, within just a few weeks, the outlook was dramatically different. Of course, no-one knows how long the virus will last. But for shipyards everywhere, the backdrop certainly means that 2020 will now not meet earlier expectations.

Operations in 2019 saw the company achieving new goals in both new construction and repairs. In its purpose-built facility in Hamriyah, the company has a record number of ships under construction including the largest vessel ever built in the UAE – a 100-mtr troop landing vessel for the Nigerian Navy – its first-ever naval building project.

Meanwhile, a new multipurpose super-shallow draft Shoal Buster design has been developed and the first one is now being delivered to a customer for work in the region. Willem Moelker, sales and marketing director, is upbeat about the design, which is 38m long, 15mtr wide, has a spacious deck but a draught of just 1.6mtr.

With plenty of accommodation, it is well-suited to a range of tasks, Moelker said, including dredging, surveying, cable and anchor handling. However, it will still be capable of tasks normally undertaken by smaller vessels in the Shoal Buster range.

The company has also laid the keel of an 80mtr DP2 diesel-electric construction vessel with a draught of 2.3mtr, also being built on spec. Developed with input from EPC contractors operating in the region, the new vessel has already attracted interest and Moelker is confident that the new design will prove popular in Gulf waters. These new designs could well help the company to meet its aim of increasing export volumes in line with UAE government policy.

The opening of the company's facility in Dubai Maritime City (DMC), whilst not new, is also proving a useful catalyst in new business development. Seistrup explains that large repair yards within the region have been competing as fiercely as ever to make the most of today's regulatory-related retrofit business. This, in turn, means that owners and operators seek to carry out only essential works whilst in dock before leaving for a lay-by berth to complete other repairs and maintenance.

Managed from its DMC facility with its high-grade workshops, the company's afloat and alongside repair business has exceeded expectations at ports throughout the UAE and elsewhere in the Gulf. Its service teams have been particularly active in Sharjah's Port Khalid. The mobile repair squads are widening the company's customer base to include the operators of large vessels for which the company's in situ facilities are not suited.

Seistrup and his team have also boosted the Hamriyah-based newbuild engineering department with ten new engineers focused on repair and retrofit business. A new 3D scanning unit enables specialist engineering works in preparation for complex pipework and other installations.

In another initiative to capitalise on the regional market, the company now has two dedicated Damen service salesmen based at its office. Their brief is to make the most of repairs and service to the more than 800 Damen-built vessels operating across the region.

Despite these positive trends, both executives stress that it's a buyers' market and supply outstripped demand, even before the impact of the virus. 'We still have to compete with the guy with a phone, five lads and a pick-up truck with a welding machine in the back,' said Moelker.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Looking to oil & gas

Michele Labrut reports on a country looking to rekindle its economic boom of the last decade by renewed investment in the offshore sector.

The popularity of Colombia President Iván Duque Márquez was already running low on account of the country's declining economic outlook and unpopular government measures that had left even his supporters feeling he was not governing assertively enough.

Also, there has been growing popular support for implementation of the 2015 peace agreement with the Revolutionary Armed Forces of Colombia (FARC) which Duque's party has always fiercely opposed. Add in recent uncertainty over the effect of coronavirus and heightened fears of a global recession and investors are definitely worried about the future of one of South America's largest economies.

However, the country's oil & gas industry has up until now been receiving significant investment to develop exploration and production, which has had a trickle-down effect on many activities linked to the maritime, shipping and oil and gas sectors.

State-run Ecopetrol is looking to increase the number of exploratory wells it has planned through 2022 to 40-45 in a bid to further bolster reserves, company executives have said. The oil major already drilled 20 wells in 2019, compared to its original goal of 12, with a reported 40% success rate, and its business plan for the period 2020-2022 anticipates investments of between \$10.8bn and \$14.1bn in national exploration and production.

The gas industry also plans investment of \$300m during this year, according to the Colombian Association of Natural Gas. Shell has acquired a 50% participation in Ecopetrol's deepwater gas blocks of Fuerte Sur, Purple Angel and COL-5, located in the Colombian Caribbean, with both companies planning to drill boundary wells in the area by end-2021.

In addition, Shell announced an alliance with Noble Energy to explore and produce the COL-3 and GUA OFF-3 blocks, the latter alone representing an investment in the order of \$100m, according to estimates of the National Hydrocarbons Agency.

Supply business

Meanwhile, the largest supplier to Colombia's offshore oil & gas sector remains MAMBO Ship Chandler, which has been furnishing general provisions to the platforms and supply ships since 2102.

With the drilling of new wells in search of hydrocarbons set restart at the end of the year 2020, 'we expect to be doing our usual deliveries of general provisions and other requirements. From this point on, this activity will be resumed and the year 2021 and 2022 and beyond will be quite busy years in the search for oil and gas with the intervention of several companies,' says MAMBO president Ray Mura.

'Drilling platforms, because of their condition of being stationary in the open sea, sometimes more than 180km from the coast, require all their needs to be delivered on time and this in addition to food includes minor and electrical spare parts, uniforms, kitchen accessories, office supplies and so on. This industry requires quality and safety standards very different from any other segment in the country and we have prepared in certifications and investments in recent years to lead this sector,' he explains.

Platform deliveries are made in containers specially certified by DNV GL for offshore, in which the food is refrigerated or frozen. These are then hoisted on board the supply ships, for ferrying out to the platform for unpacking and storage, after which they are returned again and be prepared for the next delivery. The entire process is carried out in strict compliance with relevant safety and hygiene standards.

'We have also built a new headquarters with all the requirements of the industry, next to the Free Zone Offshore, which is the centre of operations for the search of oil and gas in the Colombian Caribbean,' relates Mura. 'The location was chosen to be close to our clients for offering the best service and supplies on time with the required standards.'

Provisioning platforms and supply ships 'is a good business that is growing,' he concludes, 'and for which our company has invested in facilities and equipment over \$1m in the last two years preparing to meet this industry resurgence' – which he hopes will continue unabated from the end of year onwards.

Cartagena volumes on the climb

The Port of Cartagena Group connects 750 ports in 140 countries via its state-of-the-art platform in the Caribbean, offering port and logistics services to cargo and passenger vessels, with productivity indicators recognised among the highest worldwide. It is currently Colombia's main export port.

'In our terminals, we ended 2019 handling 2,934,000teu, up 9.0% compared to 2018,' explains Giovanni Benedetti, Port of Cartagena commercial manager. 'If we include the small volume of CCTO (Cartagena Container Terminal Operator), Cartagena for the first time handled more than 3m teu.'

The terminal increased volumes substantially 'because of new services, but also more containers doing transhipment, that in the past were sailing directly,' he adds.

Cartagena's strategy has always been 'to provide the very best service in terms of productivity at a reasonable cost,' Benedetti continues. 'Also, to acquire additional capacities and to diversify. As a Hub, today we serve Hapag Lloyd, Maersk, CMA-CGM but also ONE and COSCO. In addition, we continue expanding our international distribution warehouses.'

At the time Seatrade conducted this interview the port was still forecasting 14% growth in 2020 to around 3.5m teu, but that projection had been made before the COVID-19 crisis, he says. Most terminals' volumes worldwide will be affected by the corona virus and it is unlikely that Colombia will be exempt from the global disruption.

However, Benedetti believes that global slowdown will be temporary, with volumes surging later in the year to compensate for less trade at present. 'As we are more related to North – South trades, we do not foresee a significant impact,' he adds.

The port's reefer activity has received a boost from exports of the Hass avocado. 'For the export of refrigerated products, the treatment of the cold chain is very important and Grupo Puerto de Cartagena has the infrastructure and specialised service to give each product the treatment it requires,' explains Benedetti. In the case of the Hass avocado, handling temperatures are between 5 and 7°C and the port has a direct connection with the 29 countries where export consignments arrive.

With 130,000 refrigerated units exported per year, the Port of Cartagena Group is the only port in Colombia that has the presence of American authorities within its facilities, which reduces inspection times at the destination terminal, optimising logistics for the owners of the cargo.

Petromil: newcomer in the local bunker market

The Colombian bunker sector has had a new entrant this past year with Petromil, able to supply across all Colombian ports.

Petromil entered the market in April 2019 with the aim of meeting the challenges raised by the IMO 2020 global sulphur cap and with the purpose of restoring the lost confidence of the market in the ports of the Colombian Caribbean, says its bunker director German Perez.

'Petromil is a very different company from those that historically participated in the bunker scenario in Colombia,' he states. 'We are a wholesaler with operations in retail, natural gas, storage, port operations and transportation among others.'

Market confidence has been restored since Petromil's entrance, he adds, with sales having increased rapidly to achieve supply levels of around 35,000m tonnes by January 2020.

Petromil is blending its own fuel oil products and is ready to deliver these by barge. The company has storage facilities totalling 1.4m barrels and hopes it can reactivate a market which has been in decline for six years, reigniting domestic bunker demand.

Port of Cartagena supplied about 80,000 tonnes of bunkers back in 2013, before the oil price drop, but has never recovered the same volumes since. Bunker levels between 2014 and 2018 maintained a level of no more than 25,000 tonnes, falling in the first half of 2019 to less than 10,000 tonnes, according to Perez.

Today the Cartagena market offers substantial improvements in quality levels in line with the demands for the same, and offers competitive pricing levels to allow it to continue growing its participation in the region.

Compas points way for multipurpose terminals

Compas Colombia has a network of six multipurpose ports in Barranquilla, Tolú, Cascajal, Aguadulce, Buenavista and Cartagena, at which it is able to move solid bulk, coal and coke, liquid bulk, containers, general cargo, projects loading, machinery, steel and vehicles, according to company gm Andres Osorio.

Last year saw a strong performance by the company, which registered 'more than 6.5m tonnes throughout the network, highlighting a 27% participation in the country's steel imports, 21% of foreign trade in coal and 23% in foreign trade of food bulk,' he says.

'By 2020, we plan to move 8m tonnes throughout the entire port network, which would represent a 23% growth,' Osorio adds. 'We will continue expanding our service offer and increase the cargo volume in all terminals.'

Full implementation of the Compas Tolú facility this year following completion a $40m expansion should prove 'a key milestone' in this company growth, thanks to its strategic location as the only port in the Gulf of Morrosquillo, the closest in the country to Panama and the main national production centres, he continues, making it 'the best logistics alternative for entrepreneurs, with considerable savings in transport freight.'

In addition, Compas has three terminals to be used as shore bases for Colombian oil & gas projects. For this, it also has a terminal in Houston, main offshore base in the US, thereby providing a direct connection between Colombia's Atlantic coast and the sector's major players.

'Between 2013 and 2019, we have invested about $250m in infrastructure and equipment to provide our terminals and make them capable of responding to current logistical challenges,' details the gm. Recently the company also inaugurated a new berth at its terminal in Barranquilla, in order to be able to handle four ships simultaneously along its 800mtr of quay.

'We seek to consolidate the operation in our current terminals, increase volumes and strengthen the integral logistics support of the business unit to the oil & gas industry, for all hydrocarbon exploration and production blocks in the Caribbean region,' Osorio concludes.

SAAM Towage enters Colombian tug market

In January Chilean-based SAAM Towage signed an agreement with Intertug, a towage services company operating in Colombia, Mexico and Central America, to acquire a controlling 70% of the company. The move allows SAAM to expand northwards and enter Colombia, one of the fastest growing economies in Latin America.

Intertug boasts a quarter of a century's worth of experience, a fleet of 25 vessels and offers services in Colombia, Mexico and Central America. The company performs more than 18,000 operations per year, generating annual sales for tug services of about $44m.

SAAM Towage has steadily expanded over the past five years, incorporated an additional 24 tugboats, explains managing director Hernan Gomez. Currently the company's main base outside Chile is in Brazil, where it has a total fleet of 48 ships operating in 13 ports. Another important presence is in Panama, with 15 tugs, due to that country's strategic location for the maritime industry.

Central America including the Caribbean is seen as 'a potential growth opportunity for us, and we are actively mapping the market for the right opportunity to expand,' says Gomez. 'We have a special eye for terminal towage in this region as it needs renewal to its current available fleet,' he adds.

SAAM has already purchased a maximum 85-tonne bollard pull ASD 2813 tugboat for its operations in Mexico, commissioned from Dutch Damen Shipyards Group.

'Today, we have a strong position in the Americas, where we operate in more than 70 ports. We see that, in the face of relatively low growth, operating competitively is key and will allow the companies that do so to take on new projects and growth opportunities. We are very conscious of this and continue to focus our efforts in integrating our operations with this goal,' explains Gomez.

Hernan Gomez

'The market is very competitive, with transactions and new entrants, like our purchase of Intertug and PSA's entrance into Peru, both evidence that the industry is continuing to consolidate, a process where we believe we have a central role to play,' he concludes.

Chile's AGUNSA ventures into Colombia

Chilean logistics company AGUNSA has entered the Colombian market with the purchase of Maritrans, completed in December 2019.

AGUNSA'S strategy is to create a new regional business based around the Colombia & Ecuador cluster, under the direction of Marcelo Ramirez. The company's Ports division recently incorporated the successful concession of the Port of Manta, Ecuador, with its Logistics business also having important distribution centres in several Latin American countries besides Chile.

In Colombia, AGUNSA now has offices and commercial support (as Maritrans) in Bogota, Medellin, Buenaventura, Cartagena, Barranquilla and Santa Marta, as well as two Distribution Centres (as Agunsa Logistics) in Bogota and distribution nationwide.

'Buying Maritrans marked a milestone for the development of business in this country,' says Ramirez, 'in line with our mission... to strengthen and expand the network of services provided to cargo, passengers, means of transport and terminals, with an effective and sustainable offer that adds value to customers, suppliers, employees and shareholders. Today one of our pillars is the commitment to technology applied to our services and coverage.'

'The Colombian market is one of the most important in the region with a growth of 3.3% in 2019,' he adds. 'The oil & gas business is especially important, as it definitely generates service and logistics opportunities for companies such as AGUNSA.'

As a new entrant to Colombia AGUNSA is particularly keen to explore opportunities in the areas of logistics and ports, 'especially where our experience in multipurpose terminals and as a regional logistics operator will be an important value in the market,' he continues.

Port of Manta presentation at TOC Americas

'We think in a global way, but we operate with a view to the local needs in the countries where our network delivers its services,' Ramirez concludes. The Colombian market is highly competitive, he adds, 'but we believe there are opportunities... [with] clients and operators who see us as a potential partner from now on. AGUNSA's reputation precedes it as a serious company with long term commitments.'

Strong debut year for Moin Terminal, Costa Rica

APM Terminals' Moin Container Terminal (TCM) in Costa Rica completed its first year of operations at the end of February, exceeding expectation by handling more than 1,100 vessels and nearly 1.2m teu.

During its opening year TCM succeeded in opening up new direct trade routes, increasing port efficiency, steadilyy improving direct services from Limón to China, and attracting ships with greater capacity,' says Hartmut Goeritz, md of APM Terminals Moín. 'This was all made possible by the execution of our implementation plan and the efforts of all of our employees.'

In fact, TCM has become one of the most productive terminals in Latin America, with performance comparable to or even better than ports in Europe and the US, say Moin officials. The company has reduced berthing time from 30 hours to just 10, with no waiting times in bay. On average, TCM performed 26 moves-per-hour per crane.

'In the short term our focus is on further increasing these productivity levels,

Moin Terminal

which already exceeded our contractual obligations,' adds Goeritz, 'and working hand-in-hand with our customers and authorities to continue simplifying, through digitalisation, foreign trade processes, an area where we see an important opportunity.'

Furthermore, the company is focused on maximising use of the $1bn artificial island it built in the Caribbean – the biggest and most important infrastructure project in the country's history – and associated support infrastructure to provide other added-value services, which will provide significant savings in the cost of transport and logistics.

TCM officials say the next phase of expansion will begin when MCT reaches annual volumes of 1.5m teu, which is foreseen within a period of four to six years, depending on the market.

'APM Terminals is committed to Costa Rica and Latin America because [we] believe in the value of their location as a strategic point for the import and export of products, such as pineapples, where Costa Rica is a world leader,' explains Leo Huisman, head of APMT Latin America Portfolio.

But he cautions that 'without the expansion of Highway 32 and the consequent connections with Panama and Nicaragua, the Terminal alone will not be able to offer all the benefits that the country laid out in their master plan to become a logistical Hub.'

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CSA turns 50 in fine form


Juan Carlos Urriola

The Caribbean Shipping Association (CSA) is celebrating its golden jubilee this year. The Association, which groups 12 national shipping associations and over 100 individual member entities, was first set up in 1970 to facilitate the development of an efficient and viable Caribbean shipping industry and during its first half-century has thrived beyond all expectations.

'CSA is a 'unique product' in the maritime industry in the Caribbean region from the professional perspective but also from the cultural side of each of the countries/territories that are part of this vibrant association,' says Carlos Urriola, president of SSA International, who served as CSA president from 2009 to 2012.

The Association has become the voice of the region's shipping industry and a major regional forum where matters relevant to the growth and development of Caribbean shipping are discussed. Its conferences are amongst the most multilingual in the region – using English, Spanish, Dutch, French and Papiamento – although English is its official language, and the body represents its members in multilateral organisations including the Association of Caribbean States and CARICOM.

'The value of networking and the collaboration between ports have helped to improve efficiency in the region,' says Urriola. There is currently a new generation of younger members on the Board, 'bringing new ideas to the CSA', he adds, but this is backed up by a 'Silver Club' of members with at least 25 years' experience in the maritime sector, who are there to 'advise and help avoid the same errors and mistakes being made.'

CSA has recently appointed former Curacao Port Authority executive Milaika Capella Ras as deputy general manager to replace longtime general manager Fernando Rivera when he retires in October 2020.

'CSA remains committed to creating training programmes that are relevant to national shipping associations and regional companies that comprise our membership,' says CSA president Juan Carlos Croston. 'We look forward to significantly increasing our interaction with our members and getting a better sense of their priority issues and concerns... [responding with] inventiveness, resoluteness and solidarity.'

Dominican ports target exports and logistics


Gabriel Rodriguez

The Port of Santo Domingo is the main multi-purpose port of the Dominican Republic, under concession by Sansouci since 2005. The port is currently a leader in vehicle processing and main port for receiving and dispatching cargo to and from Puerto Rico.

In 2019 the port handled in excess of 70,000 vehicles, 40,000teu and 500,000 tonnes of non-containerised cargo. 'To this end, we have 1,854mtr of berths distributed among 10 piers and three terminals with depths ranging from 8mtr in the Terminal Santo Domingo and 11mtr in the Terminal Sans Souci,' says Sansouci executive director Gabriel Rodriguez. 'Our greatest strength is the ability to adapt our operations to the needs of our clients.'

Sansouci is unique in the Dominican Republic for having a Terminal Management System specialised in the management of ro-ro cargo. 'Our system provides clients with full traceability of the handling of their vehicles, online access to the images and results of the inspections performed on their cargo,' explains Rodriguez, helping them to 'optimise logistics time and costs'. Logistics and warehousing services are identified as areas for future expansion.


Port Sansouci

Another important port operator is HIT, which runs the Rio Haina Port. In 2019 it inaugurated the first and only cold inspection chamber in a Dominican port, and it has also recently received two new gantry cranes and dredged berths in order to be able to receive 4,500teu vessels.

HIT has also recently received two new gantry cranes which are totally electric and therefore environmentally friendly, as well as increasing alongside water depth to 12mtr, thereby allowing the operation of Panamax-class vessels of up to 5,500teu, says HIT president Erick Alma, adding that the company intends to continue in the same vein, updating its infrastructure and adapting to technologies that will guarantee a safe and efficient trade, while responding to market trends and the need for greater turnaround speed.

Meanwhile, Punta Cana International Airport and DP World Caucedo have signed an agreement to develop the first airport regional Logistics Park and Free Zone in the region, to spur development of a local logistics industry, which DP World Caucedo ceo Morten Johansen describes as one of the most vital global businesses.

Subsea Global Solutions offers regional repair and maintenance expertise

Underwater maintenance and repair specialist Subsea Global Solutions (SGS) is expanding its presence in the Caribbean and globally to help shipowners with their underwater repair and maintenance needs.

SGS executive director Harun Duzgoren explains that the company has been successfully operating a worldwide fleet maintenance programme for its key accounts since last decade, each one customised according to their specific operational and geographical requirements.

'Commercial diving has traditionally been a very fragmented business, with small shops serving their repeat customers in one place. However, we are changing this model, thanks to our 13 wholly owned offices strategically located in key shipping hubs and more than 150 strong diver-technicians, certified by class, who can perform any underwater work that may previously have been deemed as impossible.

Coping with the increased level of environmental regulation is also high up in SGS agenda. Bio-fouling management is one of the most highly recommended shipping practices by the IMO due to the harmful impact that invasive aquatic species has on marine environments around the world, and this problem will be exacerbated by the lay-up of vessels such as cruise ships during the COVID-19 crisis.

SGS has also launched a cloud-based reporting platform to store and manage all vessel specific photos and report data, thereby allowing easier hull status review and decision making.

The company's Caribbean locations are in Curaçao and Trinidad, managed by an operations teams headed by Jason Campbell in Curaçao. In both locations SGS has full-time dive teams as well as equipment and large offshore dive boats that can reach all ports in the Caribbean.

Underwater rudder repair at St. Michaels Bay, Curaçao

In the wider region also including Miami and Tampa the company has a team of more than 45 employees. These consist of project managers, supervisors, and divers, the latter all non-freelance and trained for each underwater discipline by SGS management, HSE, OEM, Hydroweld (underwater welding) and/or on the job training closely monitored by supervisors and management.

Furthermore, to ensure customer needs are met, SGS can also employee its vetted (SGS HSE Approved) partners throughout the Caribbean that can also assist and aid customers when called upon for any last minute or scheduled maintenance needs.


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Bunkering VLSFO from Peninsula Petroleum

Fourth propulsion revolution

Bill Thomson looks at some of the radical solutions needed for shipping to cut its GHG emissions in line with international goals.

Ebsen Poulsson

John Passadone

With IMO 2020 now behind us, attention has turned to how the industry can meet IMO's decarbonisation targets.

The International Maritime Organization (IMO) is aiming for an absolute cut in shipping's total greenhouse gas emissions of at least 50% by 2050, regardless of trade growth, with full decarbonisation shortly after. As the 2050 target will need a carbon efficiency improvement of as much as 90%, the industry sees this as an impossibility if shipping continues its emphasis on fossil fuels – so alternative solutions must be found. And, the experts say, if there is to be any chance of meeting the targets we will need to see true zero-emission vessels in commercial service by 2030.

With this in mind, shipping, as represented by International Chamber of Shipping (ICS), Cruise Lines International Association (CLIA), BIMCO, Intercargo, Intertanko, Interferry, World Shipping Council (WSC), and International Parcel Tankers Association, came together to propose a 10-year, $5bn research and development package, funded through a mandatory $2/tonne bunker levy. The fund would be overseen by an International Maritime Research and Development Board (IMRB), a non-governmental R&D organisation that would be established through the IMO Member States.

Esben Poulsson, chairman of ICS said: 'The coalition of industry associations behind this proposal are showing true leadership. The shipping industry must reduce its CO2 emissions to meet the ambitious challenge that the IMO has set. Innovation is therefore vital if we are to develop the technologies that will power the fourth Propulsion Revolution' (i.e. following sail, steam and diesel).

The IMRB would, according to ICS, need to be in place by 2023, with its governance established through amendments to MARPOL. The joint proposal was due to be put to MEPC 75 at the end of March 2020, but this meeting, and the IWG on GHG emissions in the previous week, have been postponed due to the COVID-19 crisis.

Even before any decarbonisation revolution can be considered, there are still questions over the IMO global sulphur cap. Scrubber wash water remains a controversial topic. Several studies have indicated that, even in ports used by many scrubber-equipped ships, water quality is within the acceptable limits. On the other hand, these only reflect the current situation, and fears for the future are still leading to some ports imposing a ban on open-loop scrubbers – or even a total scrubber ban.

Take-up of scrubbers is still progressing; manufacturers and retrofit installation yards all report good business. Retrofits can prove problematical, so the industry is developing smaller, more flexible solutions that can be accommodated in the often-limited space onboard. Pacific Green Technologies (PGT) is adding a 'naked scrubber' to its ENVI-Marine range, produced without an enclosure and thus lighter, cheaper and easier to install.

For non-scrubber-equipped ships, blended very low sulphur fuel oils (VLSFO), newly

Installing an ENVI-Marine scrubber from Pacific Green Technologies


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Norsepower's Maersk Pelican

developed to meet the IMO 2020 limits, have proved a popular choice. Peninsula Petroleum ceo John A. Passadone indicated his company had supplied some 1m tonnes of VLSFO in January alone at its physical bunker supply locations of Gibraltar, Algeciras, Barcelona, Amsterdam-Rotterdam-Antwerp, Canary Islands, Malta, Panama, US Gulf Coast and Los Angeles.

But the changeover to low sulphur fuels has not been without controversy. A paper submitted to IMO by Germany and Finland suggests that some VLSFO blends produced a large percentage of aromatic compounds which have a direct impact on emissions of black carbon – a particularly potent greenhouse gas.

BIMCO statistics indicate that, mainly as a result of the collapse of the OPEC+ alliance and the consequent decision by Saudi Arabia to flood the market with cheap crude oil, always-volatile oil prices are tumbling and bunker costs are falling. This means the differential between high sulphur HFO and the lower sulphur alternatives is significantly reduced, eroding the advantage enjoyed by scrubber-equipped ships earlier in 2020.

Cutting carbon emissions is likely to mean radical changes in marine fuels. Bio-fuels are one simple possible solution, though the practicalities of producing sufficient fuel for the world fleet are highly uncertain.

Ro-ro operator UECC is one of the latest companies to undertake a bio-diesel trial on the route to decarbonisation. Its 140mtr PCTC Autosky will use GoodFuels BFO fuel for three months on its normal route between Belgium and Spain, saving over 6,500t of CO_2 emissions on a well-to-wake basis. GoodFuels' BFO is said to be the first residual fuel equivalent biofuel, requiring no changes to marine engines. As well as virtually eliminating CO_2, the fuel produces very little sulphur.

LNG was previously seen as a major route on the emission reduction roadmap, and undoubtedly it will still play its part in several shipping sectors. But other gaseous and low-flashpoint fuels are coming under serious consideration – A.P. Moeller-Maersk has outlined its decarbonisation strategy, which at present is centred on investment, along with Lloyds Register, University Maritime Advisory Services (UMAS) and Danish Technical University (DTU), into three fuel research streams – alcohol (ethanol and methanol), biomethane and ammonia. The shipping giant says, however, that its door remains open to other ideas.

The engine builders are getting ready for new fuels – WinGD has developed a flexible injection system, under the European Hercules 2 engine research project. This features an adjustable needle to allow for the injection of lower density liquid fuels, including methanol and ethanol, while still being able to handle conventional fuel oils.

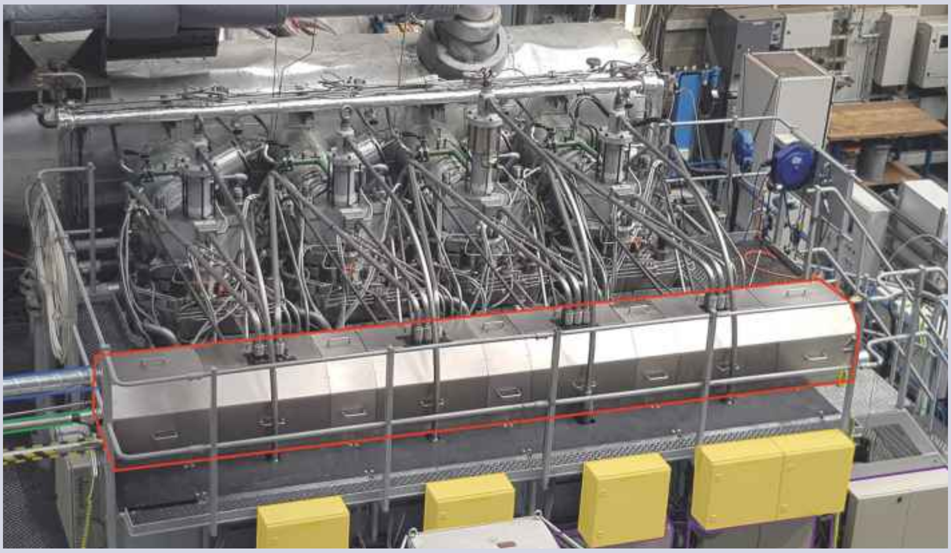
Longer-term solutions are likely to involve even more radical approaches, such as renewable energy including wind power and photovoltaic cells. Japanese company EMP's Energy Sail combines the two with cells on the sail surface; a test rig has recently been inaugurated in Japan. Norwegian company Norsepower has installed its Rotor Sail onboard several

Lubricating low-emission engines

Ever since the advent of slow steaming to cut fuel consumption and emissions, which exposed the problem of 'cold corrosion' – production of acid which caused failure in liners, pistons, rings and valves – the industry has seen cylinder lubricant choice as crucial. Lubricant properties, particularly alkalinity, have to be carefully matched to fuel type in order to prevent not only corrosion but also deposit formation. Lower fuel sulphur levels have exacerbated the problems.

Gulf Oil Marine, among other producers, has been looking at oil formations suitable for IMO 2020 and beyond. Senior technical manager Graham Calder said: 'With less sulphur from fuels, marine engine oils are likely to have high enough BN for compliant vessels and the reformulation for lubes will be built from the beginning, with lubricity and cleanliness in engine operation being the main drivers.'

Ultra-low (0.1% and below) sulphur fuel, as well as gaseous fuel, brings even more challenges. Total Lubmarine says it has an answer in its Talusia Universal BN57 cylinder oil which has been tested on two-stroke engines burning fuels of 0.5% and 0.1% sulphur content, as well as dual-fuel engines operating in gas mode.



WinGD has developed an injection system able to handle a wide range of alternative fuels

'Test results revealed high levels of cleanliness with negligible wear, demonstrating the effectiveness of Talusia Universal,' reported Total Lubmarine's technical director Jean-Philippe Roman. Talusia Universal has received approval for use in MAN B&W and WinGD engines.

Marine Energy Storage Systems form Corvus Energy are employed in several battery-hybrid and electric power installations

vessels, including a Maersk tanker and the gas-fuelled ro-pax Viking Grace. Other future technologies revolve around energy storage – Corvus Energy already has several battery-hybrid installations, mostly on passenger vessels, while development progresses on hydrogen fuel cell technology.

Things are moving fast, but the industry will need to step up several gears to achieve the declared aim of zero-emission ships in service by 2030. ●

Could scrubbers remove more than sulphur?

Some years ago, a Singapore company, Ecospec, introduced an exhaust gas scrubber known as CSNOx that was claimed to remove not only sulphur oxides, but also nitrogen oxides and carbon dioxide. Amid controversy over the science involved, the system never caught on at the time – perhaps partly because the electrical power demands were too high to be practical for shipboard use.

The idea of using exhaust gas cleaning to meet IMO NOx and CO2 reduction targets lives on, however. An Israeli company, SICS, says it has developed a new type of hybrid scrubber that removes sulphur and nitrogen oxides in one process, using a catalyst to oxidise sulphur and nitrogen in the exhaust gas. The resulting anions are bound using an alkaline material, and the salts created can then be bled out of the scrubber. The mixture of salts can be separated by a further process, allowing the bisulphite-free sulphates to be harmlessly discharged to sea and the saleable nitrates retained for discharge in port.

Another potential solution was presented at a recent scrubber industry conference, by technical consultant Dr Robert Allen. By adding a second stage to a SOx scrubber, an alkaline water washing medium would react with NOx and CO2 to produce relatively small and easily-handled quantities of nitric and carbonic acids.

The system uses industrial tourmaline as an electrolyte to produce hydroxyl radicals. Lab tests show that this can be done with a very small power requirement and scaled up to ship-size the process could produce 20cu mtr of wash medium at a cost of about $10.

Dr Allen says that more research is needed to find out if the principle is feasible at a large scale – and he admits that is a ‘very big if’. But it could be worth a slice of the industry’s $5bn research fund.

Carbon emissions as ship cargo

A joint project between energy company Equinor, Shell and Total, with technical support from classification society DNV GL, has been investigating the possible transport of carbon dioxide by ship as an essential link in the global decarbonisation chain.

The project, known as Northern Lights, is part of the Norwegian effort to achieve full-scale carbon capture and storage. It initially will involve capturing of carbon emissions from two sites – a cement production facility and a waste-to-energy plant – and transport of liquefied carbon dioxide to an onshore terminal, from which it will be transferred by pipeline to a North Sea undersea storage location.

Existing technology would be adapted for the vessels proposed to carry the CO2. LNG, dual fuel and battery-hybrid propulsion alternatives are under consideration, while the cargo containment system will be based on existing gas tank technology. The focus is on materials and structural design able to withstand very high pressures and low temperatures, as well as corrosive liquid CO2.

The Northern Lights carbon capture project involves ships transporting liquid CO2 from land-based industry to be stored under the North Sea

At atmospheric pressure, carbon dioxide sublimes between gaseous and solid (dry ice) states, so to liquefy the gas the temperature must be kept at around −50°C at a pressure of about 7 bar, which can be met with a modified Type C tank design. The tanks need to withstand pressures up to 19 bar to reduce refrigeration requirements and accommodate temperature and pressure variations in the loading and unloading phases.

With industrial-scale carbon capture and storage seen as being a vital part of the UN COP21 decarbonisation target, and transport of CO2 by pipeline not always a practical proposition, DNV GL sees great potential for shipowners in carrying carbon. The Northern Lights project is seen as a means of jump-starting CO2 transport, which should then spread to other industries.

The robot, suitable for most ships, will be stored on board

Jotun takes smart robotic approach

Paul Bartlett reports on an innovative new development.

Sandefjord-based coatings manufacturer, Jotun, has launched what it claims is a revolutionary technology for keeping ships' hulls free of fouling, based on digital technology and smart algorithms.

By using a remotely controlled robot, HullSkater, stored on board, hulls can be cleaned as microscopic microfouling develops, before it affects hull resistance and fuel economy, the company said, and before it becomes a biosecurity risk, requiring waste collection.

Owners who sign up to the new service will have a HullSkater, its storage container and a mobile launch and recovery ramp provided by Jotun on board at all times. Initially, a shore-based skate operator will provide training and guidance during robot operation. Thereafter, shipboard personnel will receive instruction and supervision by voice and video. The system will be suitable for most ships but not all, said Jotun's Geir Axel Oftedahl, director of business development, depending on size and hull curvature.

The robot, developed jointly by Jotun with partners DNV GL, Kongsberg, Semcon, a robotics specialist, and Telenor, is attached to a ship's hull by the force of its magnetic wheels. It is equipped with electric motors for propulsion and steering, and has cameras and sensors to enable the operator to navigate the device and to see the condition of the hull.

A motorised brush clears away microfouling without damage to the purpose-designed coating offered by Jotun as part of the package, SeaQuantum Skate. The unit can handle double curvature and radii down to 1.8mtr, Oftedahl explained. 'This means most medium and large sized ships.'

The HullSkater is connected to the control unit via an umbilical and can be remotely operated in locations with 4G coverage. Prior to the launch, the system had been tested by three shipowning groups – Berge Bulk, Maersk and Wallenius Wilhelmsen – in several ports. Feedback was positive, Oftedahl said.

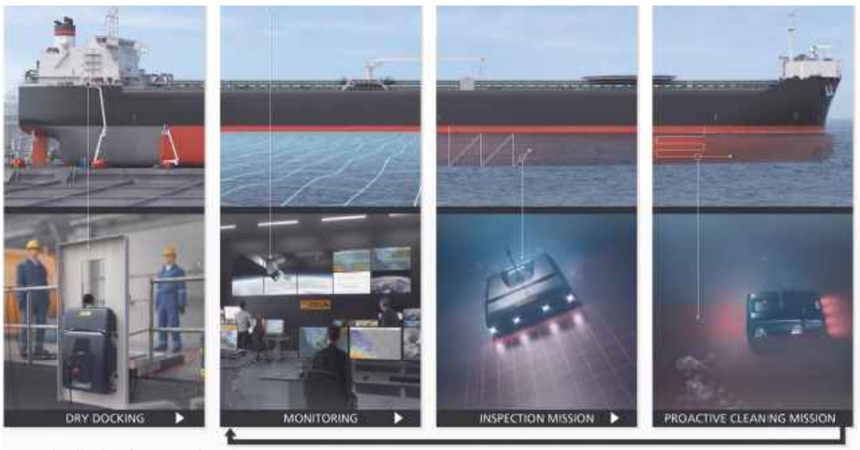
Leading coatings companies have wrestled with the prevention of microfouling for years. It develops on any surface submerged in water over time and eventually develops into slime, causing speed loss and higher fuel consumption.

Oftedahl explained. 'Reactive cleaning, even if regular, will result in a performance loss. An improvement in performance translates into a fuel cost saving. Proactive cleaning means removing the fouling before it negatively affects hull performance.'

Oftedahl will not reveal the likely cost of the service which, presumably, will vary with discounts offered for groups of ships or fleet-wide deals. What he did say, however, was that 'for ships in challenging operations, fuel cost savings alone will greatly exceed the cost of the service. Other benefits include unlimited idling, improved environmental footprint and greater operational flexibility.'

However, timing of the product launch was unfortunate for Jotun. The company had arranged for large numbers of people to fly into Oslo to attend a launch event. This had to be cancelled because of COVID-19. Then, a few weeks later, oil prices crashed leaving bunker prices at their lowest levels for years. Since then, virus-related disruption has deepened and many owners and operators have been distracted by other operational issues.

Separately, Jotun has become the third marine coatings manufacturer to introduce the organic, non-metallic compound, Selektope® into some of its antifouling paints. Although details of the deal are not yet available, it is understood that the paint company will incorporate Selektope into its coatings, SeaQuantum Pro Ace and SeaForce Active Ace. Chugoku and Hempel also use Selektope as an active agent in some of their coating brands. ●



How hull skating works

Knutsen chooses AkzoNobel

The recently delivered LNG tanker, Adriano Knutsen

After favourable experience with AkzoNobel coatings previously, Knutsen OAS recently chose a combination of Intershield 300 and Intersleek for new LNG tankers built at Hyundai Heavy Industries. The 180,000cu mtr Rias Baixas Knutsen and Adriano Knutsen have AkzoNobel's Intershield 300 in ballast tank areas and premium coating Intersleek 1100SR on the hulls. This biocide-free foul release coating, the most recent addition to the Intersleek product range, is formulated to minimise the impact of slime on hull resistance, with 'SR' standing for slime release.

Knutsen project manager, Oliver J. Smith, commented on the choice of Intershield 300, a product used by the shipowner over a long period. 'The reason Knutsen applied Intershield 300 on our new LNGs is because we knew that in the long term, we were able to benefit from lower maintenance costs. When we have inspected our vessels in service having Intershield 300, the number of repairs has been very minimal.'

Meanwhile, the director of AkzoNobel's Marine and Protective Coatings business, Jean-Michel Gauthier, expressed pleasure at Knutsen's choice of hull coating and his company's further involvement in the LNG sector. He noted that Intersleek was the marine coatings industry's first biocide-free foul release coating when it was released in 1996 and that the company has been a 'front-runner for this technology' ever since.

Virus stimulates quick response

Two new antivirus products were launched in April as COVID-19 plunged the world into unprecedented chaos. Japanese paint manufacturer Nippon Paint and US technology company, Corning Inc, released an antivirus coating to prevent the transfer of viruses from painted surfaces to people.

Although the coating, which contains Corning Guardiant™ Antimicrobial Particles, has been developed to stop viruses sticking to surfaces in hospitals and health centres, it is also likely to have a range of applications in shipping, notably on cruise and passenger vessels, ferries and offshore vessels with both marine crews and specialist personnel on board.

In a separate development, the ultraviolet technology used to kill marine organisms in ships' ballast water tanks can be adapted to protect people against virus infection from contact with surfaces. France's BIO-UV Group revealed that a prototype scanner, based on UV-C technology, is currently being independently verified and said that a surface disinfection system could be ready for market by the end of May.

The handheld device emits a ray of UV-C which is passed over a surface to disinfect it. The scanner can be used to kill viruses on many types of surfaces, including tables, worktops, keyboards and furniture.

Hempel's pre-virus growth strategy

Danish coatings manufacturer, Hempel, revealed ambitious plans earlier this year, announcing that it aims to double revenues to €3bn through organic growth and new acquisitions. COVID-19 will almost certainly have disrupted these objectives, however, but in a March letter to customers, partners and stakeholders, group president and ceo, Lars Petterson, gave assurances about the future and highlighted the company's strong financial position.

In a February briefing to journalists, group vice president Christian Ottosen outlined some aspects of the marine market, some of which still stand, despite the impact of the virus. He said that the new construction market was 'still low', and since his comment, this situation has

Lars Petterson

obviously worsened. But he said that a greater number of drydockings was likely to continue over this year. This expectation has almost certainly now been superseded. Meanwhile, continuing expansion of the world fleet was underpinning growth in the company's sea stores business.

He described a number of other initiatives designed to raise efficiency. A new system of global account managers had been implemented, he explained, to focus on large global accounts. This, as well as other steps, was already paying off. At that time, he said that the company had gained market share in new construction, repairs and maintenance, and sea stocks.

Meanwhile, Hempel would continue to focus on high-end coatings and products that could help to reduce through-life maintenance costs. He also identified the increased attention paid to emissions performance, not just by some proactive owners and operators, but notably by charterers.

Damen containerised InvaSave 300 mobile ballast water system at the Port of Hamburg

Ballasting amid uncertain times

Charlie Bartlett explores some of the latest technologies.

The IMO's experience-building phase (EBP), a no-wrong-answers trial period in which owners and port states can learn about how the systems work, was supposed, by this point, to have yielded valuable preliminary findings, which could be used to inform the rest of the trial. At time of writing no IMO members have yet come forward with data, and no funding appears to have been allocated.

This will be alarming for any owners of a mind to take risks; in October 2019, the revised 2016 Guidelines (G8) for the approval of ballast water management systems – hitherto a voluntary measure – will be mandatory, meaning that shipowners will need to fit G8-compliant systems from this date.

Though non-G8 systems fitted before October are – apparently – allowed, the rules have already changed once. Seeing the way the wind is blowing, many owners will likely seek those systems which comply with the new G8 standard, but in any event finding a yard may prove challenging, with cancellations and personnel shortages globally due to COVID-19.

This leaves ballast water manufacturers with everything to play for in the rush to secure certification before October. Manufacturers are keen to secure market share for spare parts, meaning that even the best systems are being made available at cost prices.

But additionally, a new trend has emerged which may change the market in a way not hitherto anticipated. Ballast water manufactures are making equipment available for operation on land. Damen, in particular, has designed several variants on a shore-side ballast water system Invasave, capable of serving docked vessels with a fast uptake of treated ballast; various others, including Bawat, mentioned below, are developing technology of this type as well.

If this shore equipment sees widescale adoption, it could in many cases circumvent the risk inherent in using a ballast water system onboard the vessel – namely, that such a system may be malfunctioning without the crew being aware of it. (This is still a risk, if the mesh filter screens develop a scratch – not enough for a major pressure differential, and therefore, an error diagnosis, but enough to render the water non-compliant). Where a shoreside system can be easily operated and maintained, this is less of a concern. Moreover, a shoreside system can be used in an emergency, where a ballast water system onboard is overtly malfunctioning.

More recently, Damen unveiled what it is calling a ballast water pre filtration barge (BWPF), which it says will address shortcomings in what can be achieved using a shipboard system. 'The level to which onboard systems are tested demonstrates an ability to handle sediment levels up to 50 mg per litre. However, at some terminals, this level is exceeded – sometimes considerably,' Damen Green Solutions product portfolio manager Matthijs Schuiten said in early February. 'We recently ran tests on a waterway in the US close to a harbour, for example, and found sediment levels 30 times above this.

'Such high levels of sediment can cause ballast water filter blockage. This can make for huge operational challenges, preventing cargo unloading or ballast water intake.' It is much easier to scale-up a shoreside or barge-based system in order to address this disparity, than to perform the same job by retrofitting a system into whatever space is available onboard a ship. 'Pre-filtering the water in this manner ensures the ballast water system onboard is not blocked due to sediment,' Schuiten continued. 'Having such capabilities enables terminals to add value with an additional service for calling vessels. With the IMO legislation's passage into law, we expect to see demand for such services in the near future. Developing the BWPF Barge is Damen's way of making sure that, when the need arises, we are prepared to respond quickly.'

Meanwhile, in a developmental step which reaches outside the usual framework of the machine itself, Ecochlor has announced a partnership with logistics company Horizon Air Freight to ensure a swift service in getting spare parts to the vessels and customers that need them.

Ecochlor's treatment bleeds off a side-stream of the ballast water intake and treats it electro-chlorination to generate a hypochlorite, which then rejoins the main stream of ballast water uptake and disinfects it, remaining in the tank with the rest of the ballast following uptake.

While electro-chlorination systems are generally understood not to require as much maintenance as a UV-type system, electrodes do need to be replaced from time to time, and are more expensive than UV lamps. On top of this, the devices themselves must be type-approved in order to be compliant with the Ballast Water Management Convention, meaning that getting them from a third party is not an option.

With this in mind, securing whatever guarantee it can of a fast spare-parts turnaround, such as in this deal with Horizon Air Freight, which has agents in 32 countries and an on-time delivery rate of 99% with 18,000 shipments per year, represents a forward-thinking approach by Ecochlor ensuring as little delay as possible and minimising the risk that a vessel will be caught out sailing with non-compliant ballast water on board.

'Horizon has been in the maritime industry for over 50 years and is trusted to get our shipments on-deck and on-time,' said Justin Knight, director of operations at Ecochlor. 'We will also be able to offer our customers added services in shipping that will allow them to focus on other immediate concerns related to their retrofits. We are very excited to bring on additional support 24 hours a day, 365 days a year in our efforts to provide superior support to owners.'

'Horizon Air Freight is very excited about our partnership with Ecochlor to provide logistical solutions for their customers,' said Steve Leondis, ceo of Horizon Air Freight. 'Our joint initiative will help shipping companies obtain compliance with the new IMO ballast water treatment standards, a critical step in helping keep our waterways clean.' ●

Hyde Marine Guardian Universal Service

Hyde Marine Guardian-US (Universal Service) completed testing with the US Coast Guard early late last year and has been certified for operation within the IMO's revised G8 parameters.

The award verifies that the equipment will operate successfully in any salinity and turbidity, making it a viable option for the Great Lakes – an area which has been the wringer for ballast water systems thanks to the lakes' variation in water types.

Rigorous testing involved recording the results of treatment with UV transmittance as low as 40%. Another test going beyond the call of duty involved testing with water 'far in excess' of IMO or US Coast Guard testing requirements, the company said. Final tests were conducted in 'sweet' fresh water with less than 1 psu, completing shipboard testing in all salinities. We are confident that our system can perform to the expectations of our clients anywhere their vessels may go,' said Chris Todd, executive director of Calgon Carbon UV Technologies/ Hyde Marine. 'Hyde Marine is very pleased to have completed our testing requirements.' The company has sold more than 500 systems to date.

Hyde Marine Guardian-US system in-situ

Bawat – an interesting newcomer

Bawat arrived late to the market with a system which operates differently from the big two ballast water technologies – electro-chlorination (EC) and ultraviolet (UV). At first glance it might appear that Bawat's pasteurisation method – using heat exchangers to repurpose heat from engines' jacket water – is a bit too simple to be true. After all, using engine waste heat to treat ballast should incur no additional operating cost to the shipowner, except for an occasional requirement for spare parts. However, the USCG, long understood to be the most stringent regulator of new systems, have verified that it works, providing final type-approval in February.

Bawat system uses heat exchangers to repurpose heat from engines' jacket water

'Most shipowners seek cost effective systems that have both the IMO Type Approval and the more stringent USCG Type Approval to gain the reassurance that the technology works and their vessels can remain compliant of both international as well as local rules,' said Marcus Hummer, Bawat chief executive. 'A vessel without USCG Type Approval, even if not operating in US waters immediately, will certainly lack future flexibility to do so'.

Heat exchangers, pumps and pipes – the only elements of the Bawat system besides a control unit – do not often break down and are stalwarts of reliability next to UV lamps. Water is pasteurised as it moves through the system and using a lower heat – as low as 62^0C if necessary – is merely a matter of applying the treatment for longer. Heat can be supplied via the ship's engine or boiler, or in the worst-case scenario oil can be fired to generate the heat.

In the case of normal operation, however, '...the Bawat system is not only truly green but also offers almost zero operating costs,' continued Hummer. 'All other systems require vessels to generate additional power, thus having high operational costs. Our system... uses excess heat from the ship's engine cooling water or other excess heating sources onboard to create the heat needed to pasteurise the ballast water and kill off anything in it.'

Alfa Laval PureBallast 3 certified for Chinese vessels

Alfa Laval garnered a type-approval from China Classification Society (CCS) for its system PureBallast, making it one of just a few systems which can be installed on Chinese-flagged vessels.

'Alfa Laval has long had a strong position in the Chinese newbuilding market and has grown considerably in the retrofit market during the last 12 months,' said PureBallast head Peter Sahlén. 'Now that PureBallast 3 has Chinese type approval, we can support all shipowners who build or sail under the Chinese flag.'

Over time, Alfa Laval has perfected the application of UV light as a means of killing or rendering unviable the microorganisms in ballast water, and has developed a reputation as a first-mover in this segment.

Following a mesh filtration phase to whittle out the larger organisms, ultraviolet light shines through the ballast uptake, attacking the cell membranes of any organisms within it. The current system is PureBallast's third generation, with a leaner footprint on board lending itself to straightforward retrofit, as well as type-approval according to IMO's new G8 standard.

PureBallast system

The Chinese type approval is a boon for the company, opening up a large swathe of the market for spare parts, and a massive improvement to its fundamentals. 'There are many who see the benefits of a strong international partner in ballast water treatment – one with proven UV technology that can handle large ballast water flows, but also one with global service and support,' said Sahlén. 'In fact, the majority of our dedicated service engineers are stationed in China, where they are well positioned to support Chinese and foreign customers with the commissioning and service of PureBallast systems.'

SKF BlueSonic BWMS UV and ultrasound

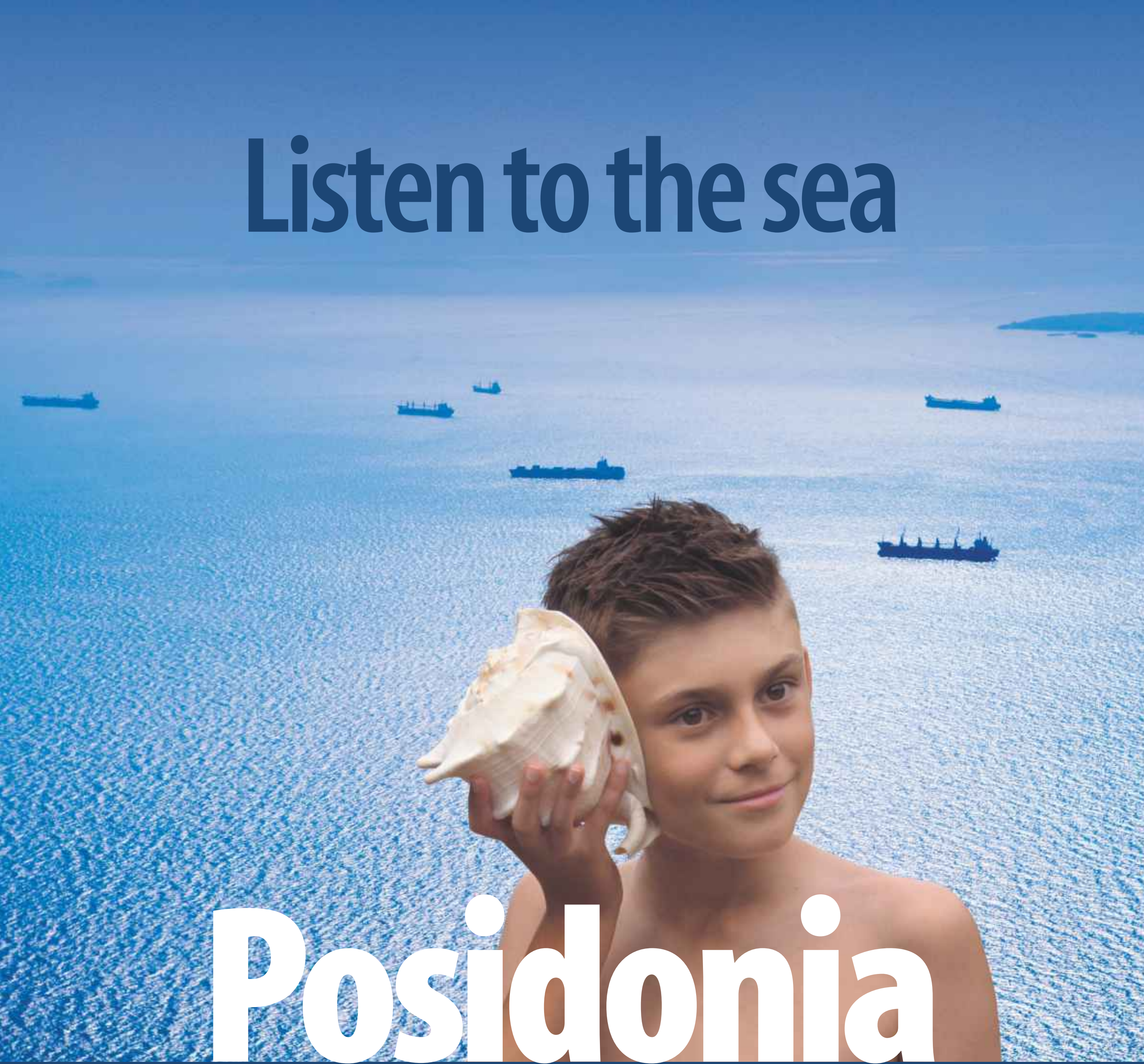
SKF Marine reports that its BlueSonic BWMS has successfully passed all land-based tests required by both the revised IMO G8 Resolution MEPC.279(70) and the US Coast Guard.

The company says that the BlueSonic system it has developed 'cleverly combines UV and ultrasound,' using ultrasound frequencies both as part of the treatment and as a cleaning method. The system's treatment applies both ultrasound and UV light, which prevents build-up of fouling on UV lamps – an issue familiar for shipowners used to dealing with hull fouling, with similar implications for performance.

'The SKF BlueSonic BWMS uses ultrasound cleaning instead of chemicals,' said Thomas Kaiser, SKF's director of sales, in a February announcement. 'Its ultrasound frequencies not only maintain the system's performance but weaken the undesirable organisms in the ballast water.

'Maintenance costs and downtime are further reduced by the high resistance of its reactors to corrosion and cavitation, which also extends their lifetime.'

Employing this special technique allows the SKF system to use a single mode for ballast water treatment in all manner of salinities, turbidities, and water types, the company says.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