



Newsletter

January 15th 2018

Link road, rail, sea!

Council Of Intermodal Shipping Consultants

YEAR XXXVI
Issue of January 15th 2018

PORTS AND TERMINALS

BRITAIN'S BIGGEST PORTS SET TO WEATHER BREXIT STORM Page 3

MARITIME TRANSPORT

CHINA'S WASTE IMPORT CHANGES IMPACTING FREIGHT SECTOR " 6

RAIL TRANSPORT

RAIL FREIGHT 2017 & AHEAD – BY ERFA'S JULIA LAMB " 9

ROAD TRANSPORT

MORE GIGALINER ROUTES IN GERMANY " 12

INTERMODAL TRANSPORT

FRENCH PORTS TO LAUNCH SHUTTLE TO SWITZERLAND " 14

TRANSPORT & ENVIRONMENT

SULPHUR EMISSIONS: THE OUTSTANDING CHALLENGES " 16

INDUSTRY

DNV GL: THE PATH TO DIGITAL CLASSIFICATION " 22

LOGISTICS

MODERN CAPITALISM HAS OPENED A MAJOR NEW FRONT FOR STRIKE ACTION – LOGISTICS " 27

STUDIES & RESEARCH

LOW-EMISSIONS OCEAN SHIPS: WHO SHOULD PAY FOR SHIPPING'S GREEN TRANSITION? " 31

REEFER

Q&A: MAERSK CONTAINER INDUSTRY'S FUTURISTIC REEFER TECH Page 37

SAFETY & SECURITY

US PORTS STEP UP CYBER SECURITY DEFENCES TO REDUCE RISK OF ATTACK " 43

ON THE CALENDAR " 46

January 15th 2018

The content of the C.I.S.Co. Newsletter is also published in the newspaper "Informare" accessible on the Internet site <http://www.informare.it>

PORTS AND TERMINALS

BRITAIN'S BIGGEST PORTS SET TO WEATHER BREXIT STORM

At the Port of Tilbury in Essex, as well as at its rival DP World London Gateway further down the River Thames, the scene is one of frictionless international commerce.

It is a model that the operators of the two ports believe can continue after Brexit, even if the UK's departure from the EU results in a new customs border with the rest of Europe.

The risks to the sector post-Brexit, however, are well known.

Currently, 95 per cent of Britain's international trade is moving via ships, according to the data from the UK Chamber of Shipping.

If physical customs checks are introduced following Brexit, it could have a "catastrophic" impact on British ports and shipping, and could result in miles of tail backs at Dover on the Southeast coast of England, the head of the chamber Guy Platten has warned.



"The nightmare scenario is actually having physical customs borders... it would be absolutely a catastrophe for the ports and for our sector," reports cited Mr Platten as saying.

"You've suddenly got lorries stacked up, you've got sailings cancelled... the whole supply chain is completely affected."

Dover, Europe's busiest ferry port, currently handles around 500 non-EU trucks a day and around 8,000 from the EU.

The sheer number underlines the UK's heavy reliance on trade with its EU neighbours.

While few expect movement of goods to be as smooth as it is now after Brexit, some of the port operators are taking proactive steps to ensure they are able to weather the storm.

Tilbury Port – a key shipping hub serving London – is busy putting in place plans for its 152 acre-expansion, a move aimed at enhancing its post-Brexit trade links with Europe.

A new terminal, Tilbury2, will be built adjacent to the existing facilities, creating a new deepwater jetty which will allow more ferries to come and go and increase the port's capacity by a quarter, according to the plans announced this month.

The addition of a new terminal is central to Tilbury Port's wider £1 billion expansion plan.

A development consent order has already been submitted, and if approved, the project is expected to be operational by mid-2020, soon after the UK officially leaves the EU.

Charles Hammond, the chief executive of Forth Ports, which owns Tilbury Ports, said the plans would "put Tilbury on the front foot" as the country heads toward Brexit.

"We are working with Border Force and other government agencies to make sure Tilbury2 is fit-for-purpose when the facility opens in 2020," he said.

Tilbury Port, located on the north shore of River Thames is around 40kms downstream from of London Bridge and its expansion project would go ahead regardless of Brexit, said Mr Hammond.

However, competition between the Thames ports has increased since the opening of Tilbury's rival, DP World London Gateway, which is also situated on the north bank of the river in Thurrock.

The deepwater port, operated by Dubai's DP World opened in November 2013 and is capable of handling the biggest container ships in the world.

The Brexit vote has so far not affected the DP World's business strategy in the UK where it operates another port in Southampton.

"Since the vote to leave the European Union, it has been business as usual for DP World in the UK and we don't see that changing," Rajeev Shankar, a company spokesman said.

"We are facilitators of global trade, and whether the UK is trading more with



Europe, or less with Europe, DP World in the UK, with its fully integrated logistics facility at London Gateway and UK's most productive container terminal in Southampton, is here to ensure the UK can move goods in and out efficiently,

reliably and safely."

Mr Shankar acknowledged that for some of DP World's customers, Brexit is a concern and there is uncertainty while businesses wait to see what kind of a trade deal is struck between the UK and the EU.

London Gateway, he said, however is well placed to withstand any potentially adverse impact from the Brexit negotiations.

Meanwhile he said, "We will work with current and new customers to ensure trade is as seamless as possible, whatever the outcome of Brexit."

(from: hellenicshippingnews.com/thenational.ae, January 2nd 2018)

MARITIME TRANSPORT

CHINA'S WASTE IMPORT CHANGES IMPACTING FREIGHT SECTOR

New Chinese restrictions on imported waste, introduced since 1 January, are set to have significant implications for the international freight transport, logistics and supply chain sectors – particularly for backhaul east-west intercontinental container shipping trades, although the changes are also likely to lead to rising costs to supply chains from higher packaging costs.

China announced last July that from 1 January it would impose much stricter quality restrictions on imported cardboard, as well as banning the import of 24 types of waste material, including plastic and mixed paper, as part of president Xi Jin Ping's drive to clean up China, environmentally.

The new quality standards mean cardboard will only be accepted by China if the material is almost completely uncontaminated with other waste products: contamination rates must be below 0.5%, rather than the 1.5% previously applied.

This means cardboard that still contains staples or is contaminated with dirt could be rejected and sent back on container ships to the countries of origin.

Countries including the US and the UK export millions of tonnes of cardboard and other waste products to China each year for recycling, but some or all of this could be rejected under the new restrictions.

Indeed, container line Maersk reported a drop in waste cargo into China even before the 1 January changes, but expected some measure of rebound as exporters adapt to the new regulations.



Other lines, such as Hapag-Lloyd, told customers as early as last September that they would stop accepting cargo of scrap plastic and waste paper from Europe, the US and Asia that are due to arrive at Chinese ports after 31 December.

Peter Sand, chief shipping analyst at shipping industry association Bimco, stressed that the changes did not amount to a total ban on imported waste products, but on the import of 24 of the dirtiest and most polluting types of waste, ranging from household plastic waste to unsorted paper, and recycled textiles to slag.

From a shipping perspective, Sand noted that the restrictions from China were “actually a technical trade barrier, hindering trade”, and as a result the World Trade Organization had notified its members and widely debated the ban.

But in spite of these concerns, the changes came into force at the start of 2018.

One source estimated that scrap and waste products make up the sixth largest US export to China, although data from MDS Transmodal and Bimco indicates that ‘pulp and waste paper’ together form the single biggest category of containerised exports from the US to Asia (based on SITC2D trade classifications – Standard International Trade Classification at a two-digit level), making up almost 1.5 million teu per year.

‘Ores and scrap’ come in fifth at more than 300,000 teu; ‘plastics in primary forms’ are sixth at nearly 300,000 teu; ‘textile fibres’ are eighth at more than 250,000 teu; and ‘paper and paperboard’ are reported to be the ninth largest category of containerised exports from the US to Asia at more than 170,000 teu per year.

Some of these may be included in the ban, sources say.

“Waste paper in particular, but also scrap plastics and metal scrap, are among the more significant back-haul cargoes for container shipping lines,” Sand told Lloyd’s Loading List.

He confirmed that volumes of waste going into China had already been decreasing.

“In the second half of 2017, after the announcement of the ban, trade into China involving now-banned materials already started to drop,” he said.

“By the start of 2018, many or all lines have stopped accepting cargoes of this kind destined for a Chinese port.”

Sand stressed that container lines make the majority of their money on front-haul cargo – “in short containers sailing from the East to the West” – although the effects of the changes were likely to be significant.

“Going back, container lines aim at covering costs by transporting low-value cargoes, while repositioning their ships,” he noted.

“Not only container lines are affected by this; dry bulk shipping also transport scrap metal around the globe.”

He added: “In short, container lines will lose revenue and money on back-haul trades; China is the largest importer of many waste materials – a trade pattern that has been growing for decades.

Depending on where the waste will now be sailing to – if sailing at all – the import will become less or more significant to shipping.”

(from: lloydsloadinglist.com, January 4th 2018)

RAIL TRANSPORT

RAIL FREIGHT 2017 & AHEAD – BY ERFA'S JULIA LAMB

To say it's been a challenging year for the rail freight sector, not least in Europe, is an understatement.

While the immediate effects of the Rastatt landslide in August were nothing short of an operational nightmare, there's no doubting that the industry has had a wake-up call.

In this special column for RailFreight, Julia Lamb, Secretary General of the European Rail Freight Association (ERFA) looks back at 2017 and shares some of her hopes for the coming year.

* * *

"We enter 2018 with fresh hope that the new year will see strong, collaborative action to develop rail freight's competitiveness, bringing with it a new dynamic to develop rail's share of the transport market and place it at the forefront of Europe's sustainable transport future.

ERFA represents private and independent rail freight companies from across Europe, who want to invest in rail, set up new routes and new types of services in and across any of the EU countries, attracting more and new customers to choose rail as a transport mode.

Regrettably the climate remains difficult to do so in many or even most European countries and while change has long been a long time coming, it has often been let down by a sector too slow to take advantage of the many opportunities ahead.

For 2018 we are hopeful of a new dynamic on the horizon.

Intense pressure

The Rastatt disaster has brought new commitments from rail's main service provider, the infrastructure managers, who are under intense pressure from rail's customers, to step up support for competitive international rail freight services.

These include making progress towards simplified language requirements for international rail operations, the centralisation of traffic management along the main international rail routes and progress towards the development of viable alternative routes with equal access parameters.

These are crucial measures to either improve reliability and/or reduce rail's costs, and are central to customers choosing rail over other competing modes.

It is clear that the current situation whereby rail companies have to adapt to



different operational rules, signalling systems, language requirements, technical requirements for their equipment each time they cross a national border or operate on an alternative route can never deliver a competitive offer.

International-focused rail operations and pragmatic solutions must be the future for rail.

With the EU Competition authorities' intensified interest in cracking down on anti-competitive behaviour in rail, 2018 should also see progress towards achieving a more attractive environment for rail freight companies to invest in the sector and set up new services.

Transparency

The recent decision to investigate the Romanian incumbent freight operator, CFR Marfa, for unlawful use of state aids, comes on the back of a record fine for Lithuanian Railways for dismantling public rail infrastructure in order to penalise a rail customer and the earlier ECJ ruling against Germany for failure to ensure full transparency in DB's accounts.

These decisions should all have a far-reaching impact on their respective markets and beyond.

Why is this so important for rail's future?

The misuse of public money and abuse of dominant position by some of the biggest market players hinders much-needed restructuring to support rail's sustainable growth.

The situation means that rail does not have a competitive market and is therefore not in a strong position to compete with road on price, quality or innovation.

In most EU Member States one dominant market player, normally the state-owned company, trounces the competition, with the nearest, biggest competitor trailing far behind.

The monopoly situation fosters pricing distortion, limited customer orientation and unsustainable business models.

None of these help rail to shift more goods away from road.

2017 has also seen much-needed recognition from leading national governments of the significant contribution rail freight brings to their economies and its positive impact on reducing harmful CO2 emissions, relieving congestion on the roads and reducing air pollution.

This has translated into welcome support, both in terms of new financing and in terms of political will to address many of the national obstacles that hinder rail's development.

The German Master Plan, in particular its commitment to halve track access charges, demonstrates clear support from the German Government for promoting rail's competitiveness.

So does the very recent announcement by the UK to finance the ETCS retrofitting of the entire UK rail freight fleet of locomotives, supported by national government funding.

Level playing field

Also back on the table are vital initiatives to minimise the disruption of engineering works on the quality of rail services; strengthen the role of the rail facilities' market in boosting rail's competitiveness; and create an EU standard pricing scheme for road that puts it on a more level playing field with rail charges.

It is essential that these positive developments are built upon, promoted across Europe and ultimately secure a central role for eco-friendly rail in Europe."

(from: railfreight.com, December 28th 2017)

ROAD TRANSPORT

MORE GIGALINER ROUTES IN GERMANY

As expected, the German road network open to 25.25m (3 TEU) gigaliner trucks (aka ecocombis), has been extended.

A gigaliner in Germany can gross out at 40 tonnes, or 44 tonnes for intermodal units, which limits them to cube out loads and empty transports.

With effect from 12th December 2017, the longer road trains are allowed on all motorways in the state of Nordrhein Westfalen (NRW) and on a number of roads one category below the level of a motorway: the Bundesstrassen.

Significantly, two more key federal states in the west of Germany have cautiously, joined the gigaliner network, Saarland and Rheinland Pfalz.

Whereas NRW borders Belgium and the Netherlands, these two states border Luxembourg, France and NRW.

Hence ginaliners with o/d points in Rheinland-Pfalz and Saarland can access the Rhine seaports via NRW, although for the time being Rheinland-Pfalz and Saarland the routes must be motorways.



The two states have, however, also lifted all restrictions for 'lengthened trailers' (Lang Lkw Typ 1) - ie Kögel 14.9m Eurotrailers - on their entire road network.

The network extensions have already been adopted by Germany's federal transport ministry (BMVI) in Berlin, in the meanwhile, following the 8th decree allowing extension of the gigaliner network, dubbed Positivnetz (Positive Network), which includes 15 federal states.

Such extensions follow entries submitted by the states themselves.

As the states are continually monitoring their road network for further extensions, further such updates assembling the states' entire are likely.

The summary of all roads incorporated in the newly effective network can be downloaded from: <http://www.bmvi.de/SharedDocs/DE/Artikel/K/lang-lkw-8te-verordnung-pm.html>.

(from: worldcargonews.com, January 2nd 2018)

INTERMODAL TRANSPORT

FRENCH PORTS TO LAUNCH SHUTTLE TO SWITZERLAND

The joint efforts of the two major French seaports (GPM for 'Grands Ports Maritimes') made it possible to bring a project expected for long by the professionals of logistics and transport to a successful conclusion and realization: the Port of Marseille Fos, HAROPA - Port of Le Havre, in association with the French operator of combined transport Naviland Cargo, is going to launch a new rail shuttle as from mid-March 2018 which will link three times a week, each of the two French ports with the terminal of Chavornay, situated near Lausanne in French-speaking Switzerland.

The new connections will be served from Marseille/Fos and Le Havre directly via the terminal of Dijon-Gevrey in Burgundy to Chavornay.



This is actually the willpower towards international growth of both major shipping marketplaces which is concretely expressed in this innovative connection, enabling

the hinterlands of both ports to carry on extending, beyond the domestic market.

This strategy and these initiatives are totally and rapidly in line with the wish expressed by the French Prime Minister, Edouard Philippe, in his speech delivered during the 'Assises de la Mer' congress last November.

In the course of it, he reminded the objective of the ports of Marseille Fos and Le Havre to extend their catchment area beyond their current hinterland, beyond the borders of our country, especially owing to consolidated modes and means, with the purpose to be confirmed as major stakeholders in cargo trade with all the European area.

The potential Swiss container market is estimated at 350,000 to 400,000 TEU per year.

Today, only a marginal part of this traffic goes through French ports.

The coming-on-stream of this shuttle should make it possible to catch a significant part of these volumes.

For Marseille port community, the implementation of this shuttle is the result of the very strong commitment made by the GPMM with UMF towards European Authorities to extend the North Sea-Mediterranean European rail corridor, from Fos towards French-speaking Switzerland.

Owing to the rail connection with Marseille and Fos, goods to and from Switzerland will be offered the opportunity to reduce transit times to the markets of the Mediterranean and the East of the Suez canal.

For HAROPA, this first regular connection to Switzerland meets the strategic objective to extend the hinterland towards the East.

After launching in 2016 of a service to Ludwigshafen, HAROPA confirms its ambition to strengthen consolidated service with this new connection and to catch new markets in partnership with the federation of the port communities of the Seine corridor (FCPAS).

With the rail connection to Le Havre, goods to and from Switzerland will find there the opportunity to reduce transit times to the USA/Canada and South America, especially.

The new French-Swiss line strengthens the position of Naviland Cargo as the leader on maritime combined transport in France and clearly meets the strategy of development beyond French borders.

Resorting to rail transport for containers is going to alleviate congestion of the highways to Switzerland, while offering the equivalent transport capacity of 12,000 trucks per year and thus strongly reducing the carbon footprint of such transport.

The Regional Council 'Provence Alps Côte d'Azur' and the Regional Council of 'Normandy' have expressed their high interest in this project and plan to bring their financial contribution to the initiative.

(from: transportjournal.com/haropaports.com, January 11th 2018)

TRANSPORT & ENVIRONMENT

SULPHUR EMISSIONS: THE OUTSTANDING CHALLENGES

The International Maritime Organization (IMO) has been working to reduce the harmful impacts of shipping on the environment.

It adopted Annex VI (Regulations for the Prevention of Air Pollution from Ships) to the International Convention for the Prevention of Pollution from Ships (MARPOL Convention) in 1997.

Regulation 14 therein covers emissions of sulphur oxides (SO_x) and particulate matter from ships.



IMO
International Maritime
Organization

The IMO has been setting progressively stricter limits on the sulphur content of fuel oils used by ships.

Last year, it adopted a 2008 resolution that

introduces a reduced global sulphur cap on marine fuels.

The current global limit of 3.5% mass/mass (m/m) shall decrease to 0.5% m/m from 1 January 2020.

The 0.1% m/m limit in Emission Control Areas (ECAS) such as the Baltic Sea area, the North Sea area, the North American area, introduced on 1 January 2015, remains unaffected.

While the new regulation has been welcomed by all, there are challenges in ensuring its compliance and enforcement.

These challenges will be discussed below.

THE CHALLENGES

Will there be sufficient affordable low-sulphur fuel oil (LSFO)?

With 1 January 2020 less than two and a half years away, there is a real concern over whether sufficient LSFO will be available to enable compliance.

Improving hydrocracking technology in refineries is leading to higher productions of LSFO.

Sulphur from residual fuels can also be processed away using hydroconversion or hydrosulfurization technology, and low sulphur distillates can be blended with high sulphur residuals to create heavy fuel oil with sulphur contents of 0.5% or less.

So, it seems likely that sufficient compliant fuel will be available.

Blended LSFOs will, however, bring challenges of their own in the form of catalytic fines and other impurities.

Increasing demands for 0.5% m/m fuel is anticipated to drive its price up to 50% higher than the cost of residual fuel, bringing with it challenges for closing loopholes for non-compliance.

Scrubbers

One method to meet the legal requirements of MARPOL without the use of low sulphur fuel is installing exhaust gas cleaning systems known as "scrubbers".

There are two general types of scrubbers: wet scrubbers and dry scrubbers.

Wet scrubbers spray alkaline water into a vessel's exhaust to remove sulphur before it is released into the atmosphere, whereas dry scrubbers expose dry reagents to the exhaust stream to create a chemical reaction that removes the sulphur from the gas.

The benefit of installing scrubbers is that ships may continue to use cheaper high sulphur fuels.

The up-front cost of the scrubber (US\$1.5m to US\$2m), retrofitting costs, potential loss of cargo space on board, shipyard capacity to meet installation demands and training of crew to maintain the scrubbers are, however, challenges for the shipowner.

The estimated payback time for a scrubber is 2 to 4 years but this is assuming the fuel prices prognoses are correct.

Only scrubbers fitted with continuous emission monitoring equipment are acceptable.

In the United States, scrubbers are permitted but the ship must at all times still continue to comply with requirements and prohibitions in regards to water pollution.

Germany and Belgium have also mandated for closed loop scrubbers in some of their ports and parts of their territorial waters.

In closed loop scrubbers, the washwater is treated to restore its alkalinity after it leaves the scrubber, and then recirculated in the system.

Little or no water from the scrubbing process is discharged overboard.

The German green lobby group Nabu has claimed that discharge from scrubbers can have a significant impact on the marine environment.

Accordingly, whilst scrubbers are generally effective for removing SO_x from the gas exhaust, there are a number of considerations shipowners need to bear in mind when deciding whether or not to have scrubbers fitted.

Alternative fuels – LNG and Methanol

LNG, when used as a fuel, significantly reduces the emission of SO_x.

It was traditionally used as a fuel onboard LNG ships only but is now also used in other trades such as short sea shipping.

LNG's use as a fuel has been recognised by the IMO in the development of the International Code for Ships Using Gases and other Low Flashpoint Fuels (the IGF Code), adopted in 2015.

Other recent regulations include ISO 20519 (2017) which standardises LNG bunkering operations internationally.

Methanol is a clean burning alcohol, and emissions of SO_x and particulate matter from its combustion are low.

Methanol is transported in chemical product tankers at atmospheric temperature and pressure, and stored in tanks similar to those used for gasoline.

It can be produced from a wide range of feedstocks including natural gas, coal and renewables.

There are, however, several challenges facing the success of these fuels as genuine alternatives to high-sulphur content fuel.

LNG's use as a fuel is constrained by the cost of retrofitting propulsion units capable of burning gas and by the lack of port infrastructure to handle bunkering.

An LNG bunker barge costs between 5 and 10 times a liquid fuel barge.

The biggest challenge for using LNG as a fuel, however, is methane slippage due to the incomplete combustion of the methane in the engine.

The global warming potential of methane is 25 times higher than CO₂; consequently, the release of even small volumes of methane can easily negate the CO₂ reduction benefits of using LNG as a marine fuel.

The energy density of LNG and methanol is also far lower than for petroleum, which means higher volumetric quantities are needed to propel a ship a given distance than with traditional petroleum fuel.



Ships will therefore need to have larger fuel tanks (2.5 times larger in the case of LNG) which in practice means reducing its cargo carrying capacity.

Commercial disputes and criminal penalties

Potential disputes under charter party contracts in regards to compliance with fuel emission regulations are foreseeable.

Issues that may arise include whether the ship had been "fitted for the service" if she is not able to burn compliant low sulphur fuel, which party is liable to pay for deviations to take on compliant fuel, off-spec bunkers, difficulties in managing and segregating different fuels onboard to avoid contamination, delays, detention of the ship and even criminal penalties.

Owners and charterers are strongly advised to bear in mind the potential issues above and to pay attention to costs and risks allocation clauses when negotiating their charter parties.

Sanctions

Member States to MARPOL (Flag States and Port States) are to implement the new regulation through the introduction of "effective, proportionate and dissuasive" penalties.

Most violations are likely to be met by fines, which in the absence of any harmonisation of sanctions framework, can vary in severity from jurisdiction to jurisdiction.

Due to the economic benefits of non-compliance, it is likely that fines will be set at up to ten times the economic benefit for a year's operation.

Therefore, fines in the region of US\$10m to US\$50m per ship can reasonably be expected.

Penalties in the US are even more severe.

In addition to the imposition of fines, the US Coast Guard (USCG) has the power to seize ships in breach of sulphur regulations, and the Environmental Pollution Agency (EPA) may impose fines of US\$25,000 per day for the duration of the violation.

The PSC, in contrast, has no power to detain ships for non-compliance.

Methods of enforcement

The IMO has made efforts to upgrade global enforcement of the regulations.

In January, the IMO's sub-committee on Pollution Prevention and Response (PPR) prepared a list of enforcement considerations in order to achieve the environmental benefits sought through Regulation 14.

Amongst its recommendations, the committee suggested that the industry considers a draft standard format for reporting fuel oil, and develop guidance that may assist Member States and stakeholders in assessing the sulphur content of fuel oil delivered for use on board ships.

Some countries have developed the use of sniffers as a method for enforcing the sulphur cap.

Sniffers are sensory systems that detect the levels of sulphur that are emitted from a given ship's exhaust gas.

In Denmark, for example, a sniffer has been installed underneath the Great Belt Bridge, and sniffers have also been attached to light aircrafts and drones.

Localised sulphur regimes are also in force in various jurisdictions including China, Hong Kong, Australia, Turkey and California, and ships trading to these jurisdictions should be aware of the specific rules and regulations applicable in these regimes.

Enforcement methods are becoming more sophisticated but if the ultimate goal is to make ships switch to LSFO completely, the question of whether it is the Flag or Port States that will be responsible for enforcing the sulphur cap in international waters must be settled.

Conclusion

Air pollution from maritime transport is a global environmental concern.

The need to control the emission of SO_x in shipping through regulations is acknowledged but as highlighted above, challenges for compliance and enforcement remain.

It is hoped that some of these challenges can be addressed before the new global cap comes into force in 2020.

Source: UK P&I Club

(from: hellenicshippingnews.com, December 27th 2017)

INDUSTRY

DNV GL: THE PATH TO DIGITAL CLASSIFICATION

“We started looking into machine learning as a tool for modernizing classification in 2016,” says Morten Østby, Senior Principal Consultant at DNV GL.

“When we realized how important this could be, we implemented it in April 2017.

Now it is in production.”

Such a fast-track realization is fairly typical of the digital transformation sweeping DNV GL’s classification business.

“We want to move the customers over to a digital interface,” says Østby, “where clients and vessels can stay up to date, get warnings, and take advantage of digital storage capabilities – and that’s just the beginning.”

Østby’s ally in the push to modernize class, Principal Engineer Arun



Sethumadhavan,

emphasizes the main focus of the digital initiative: “We are striving for ease of access and comprehension for customers.

Today that means mobile access and expanded functionality.”

The jumping-off point for the journey through DNV GL’s modern class universe is a

personalized online portal that provides customized and secure access to all digital services and support resources.

As of November they are embedded in DNV GL’s new Veracity platform.

Simply efficient

"Smart survey booking is a major move in streamlining a previously tedious and often inefficient manual task," says Østby.

The smart survey booking solution automatically finds the best window for a ship's annual survey, allowing for as many requirements and requests as possible to be covered in one survey to avoid multiple inspections.

"Based on this time window and a list of possible ports entered by the operator, the system also looks for the closest geographical location, accounting for the scope and duration of the survey, port capabilities and surveyor availability, and issues a recommendation.

This minimizes both the time involved in booking the survey and the inconvenience for the vessel while keeping the costs down by helping reduce surveyor travel times," Østby says.

An automated version of the application is expected to be available before 2019.

"The software will enable us to track ship itineraries and notify them in advance so they can order earlier, which leaves them with a larger time window for planning and owner preparation," Østby points out.

A link to all DNV GL-approved service suppliers in the respective port will soon be added, along with a host of additional features designed to improve efficiency and keep the survey costs down.

Learning application

Many improvements are made possible by introducing machine learning, or ML, into the survey booking process.

"ML is used to calculate the time required for each survey," says Østby.

"When the scope and other parameters are set, the system outputs a time estimate based on historical data."

DNV GL has also incorporated ML into its DATE (Direct Access to Technical Experts) service where a customer's problem description transmitted by e-mail can make it challenging to assign the case to the correct category and expert or section for fast processing.

"A discrepancy between the description and interpretation may cause the inquiry to be routed to the wrong expert," says Sethumadhavan.

"Now DATE uses ML to vet cases based on historical data and quickly directs them to the proper expert.

This cuts down on manual vetting and reduces time wasted on re-routing and finding another expert.

We are already seeing that ML assisted vetting is more than 80 per cent accurate, and it gets better every day.”

Each ML-vetted routing receives a confidence rating before being enacted.

Any inquiry that has not received a very high confidence rating is returned for manual vetting.

“ML is chosen for category assignment only when the confidence level is very high,” explains Sethumadhavan.

“But by using continuous learning logic, the ML system is constantly refining its selection criteria and improving its hit rates quickly.”

But there are other human factors that complicate the advisory process.

“While we all use English only, there are different language patterns and rules in different parts of the world,” Østby says.

“We have had to teach the machines to accept compound words and different spellings.

We can even teach them to vet incorrect language.”

Remote inspection: eyes anywhere

Ship inspection often poses a conundrum: the object may be a fairly straightforward structure or piece of equipment on board, but human eyes are still required to verify its state.

Traditionally that means the human doing the looking has to be on board.

But that is not necessarily true anymore.

Remote technology is enabling eyes to see the object of inspection from virtually anywhere in the world.

Equipped with something as simple as a smartphone app, personnel on board can connect to the surveyor on land, and the survey is underway.

“The expert steers the input and evaluates the quality of the data,” says DNV GL’s Senior Principal Consultant Morten Østby.

In other words, the “cameraman” on board takes instructions from the surveyor on land who acts as the “director”.

One key prerequisite: the surveyor must have actual on-board experience.

“You have to have been there to be able to know what you are seeing,” Østby confirms.

“But the customer must be willing to cooperate,” he adds.

“Proof of repair or remediation must be provided.”

For the time being the technology will be used on occasional surveys, not for certification, and possibly for selected follow-up items when the surveyor has left the ship.

Remote inspection could also be used for certification of materials and components.

“The first steps have been taken.

Many more will follow,” Østby assures.

E-certificates wanted by many owners

DNV GL has been running pilots on electronic certificates for several years, achieving IMO compliance and winning the endorsement of many flag states.

After rolling out e-certificates in mid-October 2017, the first ship with full electronic certification was the LNG carrier Macoma.

“This took some preparation, but it shows just how fast the technology can be taken into use once it has proved viable,” says Østby.



“Just six weeks after the rollout, 25,000 electronic certificates were issued for more than 3,000 vessels in operation, including many class entries and newbuilds, and the number is growing rapidly every day.”

Customers benefit significantly, says Østby, by being able to share certificates globally immediately upon issue.

“Ports, vetting organizations, flag states, charterers, buyers, insurers – everyone wants to see the certificates,” he says.

"Before, owners and captains had to keep track of the original while sending multiple copies to land.

Manual updates were an overwhelming task, and the system was by no means secure.

Now the signed original is secure but easily accessible in the Cloud.

"Using an e-mail subscription function, each modification of an e-certificate triggers a warning to all involved parties, with the verified document attached.

Documents are accessible through the DNV GL interface but access can also be granted via any secure public website using a unique tracking number, UTN.

All transactions are in keeping with IMO guidelines," says Østby.

While some flag states have been hesitant to accept the change, the overall response has been positive.

"So far more than 80 per cent of statutory certificates have been approved for issue."

Embracing the new digital reality can also be a personal challenge, he notes, and DNV GL is willing to help those unfamiliar or uncomfortable with digital transactions to familiarize themselves with new methods and learn to trust the system.

On the other hand, many owners want e-certification for all their ships as soon as possible.

"Owners see the benefit. Endorsements are verified and completed automatically, complex processes such as the frequent certificate updates are automated, and there is no human handling of documents," Østby sums up.

"That reduces the quality assurance work to verify certificates."

He notes that the system can also be used offline: "A surveyor can complete the job without online access and issue the certificate when connectivity is available again, either when the ship is within range or when they return to land."

DNV GL is proud to be leading the fast march toward modernizing classification, bringing efficiency, accuracy, and security to certification and survey booking processes that had remained virtually unchanged for decades, if not centuries.

(from: hellenicshippingnews.com, December 29th 2017)

LOGISTICS

MODERN CAPITALISM HAS OPENED A MAJOR NEW FRONT FOR STRIKE ACTION – LOGISTICS

The decline of trade unions across the developed nations is nothing new.

In the US the proportion of workers in unions fell from a high of 35% in 1954, mostly in the private sector, to 11% in 2016 with nearly half in the public sector.

Union density in the UK fell from a high of 55% in 1979 to 25% in 2016.

Despite the recent revival of the left in both countries, the days when unions had the power to demand major concessions and win still seem far away.

Partly thanks to tough labour laws and employer aggression, their role has become much more about consultation than domination.

Now, however, a comeback looks possible – and not only because of the political climate.

Changes in the corporate landscape since the Reagan/Thatcher era point to big opportunities for organised labour.

The question is whether unions will try to take advantage.

Why the decline

In the US, the fall of labour began at the end of World War II as major manufacturers moved production facilities to the non-union South to reduce costs and escape big concentrations of unionised workers like those around Detroit, Gary, Los Angeles and Chicago.

Between 1947 and 1972, Dixie's contribution to American manufacturing value-added near-doubled to almost a quarter of the total.

The big industrial unions saw membership peak by the early 1970s, never to grow again.

The UK would follow this trend thanks to the decline of its manufacturing base and Margaret Thatcher's determination to smash union power in the 1980s.

Another key trend was a wave of mergers and acquisitions in the 1960s, launched by cash-rich corporations benefiting from strong economic growth.

This dealmaking grew from about 1,200 a year in 1963 in the US, for example, to a high of 6,000 in 1969, though it was prevalent in many countries.

This produced the rise of conglomerates – firms offering a wide variety of often unrelated goods and services.

The unions had been primarily in corporations defined by a single major product line like cars or steel.



Being part of a much bigger whole reduced workers' potential to do damage through industrial action.

This in turn made unions less attractive and further squeezed membership numbers.

Many more union jobs were destroyed by the steep recession of 1979-82, and then intensifying competition from globalisation by the mid-1980s.

Many Western corporations took a page from their Japanese competitors' playbook and introduced lean production: producing more with fewer workers; more outsourcing; and just-in-time delivery of parts, cutting inventories to a minimum.

Lean production helped companies recover their profitability, but the increase in global competition led to another huge wave of mergers: from 4,239 valued at \$206 billion (£152 billion) in 1990 to 11,169 valued at \$3.4 trillion in 2000.

After 2001 they levelled off to about 7,000 a year, still well above pre-1990s levels.

European companies followed a very similar trend, with the UK accounting for the largest share.

But this time capital abandoned conglomeration to redirect production along focused product lines.

It created corporations much like those organised by the industrial unions in the 1930s.

In addition, this time they involved massive amounts of fixed capital and costs that made them vulnerable to labour actions.

This has been compounded by what is sometimes called the logistics revolution.

This refers to a major reorganisation of the movement of goods that has become necessary as the just-in-time model has spread through supply chains and the speed of delivery has become intensely competitive in the online era.

Enormous logistical clusters of transport, warehouses, ICT networks and intermodal facilities have sprung up.

They are mostly in or adjacent to large urban areas, the biggest including New York, Chicago, Rotterdam, Hamburg and London.

The number of warehouses in the US has grown one and a half times since 1998 to over 17,000 in 2017, for example.

While automation is often a feature, labour still accounts for 65% of average operating costs, while the number of warehouse workers has grown from 356,800 in June 1990 to 830,700 in June 2017.

Total logistics employees in America are around 4m.

These are the people on whom today's industrially focused corporations completely depend.

Really big hubs need upwards of 100,000 workers to function.

Take Chicago, with over 150,000 transportation and warehouse workers in the metropolitan area.

Or FedEx's newer Memphis cluster, which employs 15,000 workers directly and 220,000 in related transport and warehouse activities.

In the UK there are clusters around Liverpool-Manchester, the Midlands, Glasgow, and London.

The London Gateway port and its 9m square foot logistics park opened in 2013 and will employ 27,000 workers when fully operative, extending an east London cluster that also includes Dagenham Dock, Tilbury Docks and London Thamesport.

In addition, major UK freight railways are upgrading to create a Strategic Freight Network similar to the huge rail corridors in the US.

Altogether, the UK logistics sector employs 1.7m workers.

Across Europe as a whole, logistics investment has grown at two and a half times GDP according to one estimate.

Opportunity knocks

These clusters look highly vulnerable to worker disruption.

A strike in a key warehouse or supplier could close production up and down a supply chain, potentially inflicting huge damage on a business's reputation for reliability among its partners.

This could put enormous pressure on employers to grant concessions or recognise a new union without the need for the sort of secondary or sympathy strike action that is illegal in many countries.

It is one of the great ironies of modern capitalism that we are now seeing the massive concentrations of manual workers that business leaders once sought to escape.

We have not yet seen unions trying to take advantage of these situations, partly perhaps after decades on the backfoot and partly because the likes of warehouse workers tend not to be unionised.

Yet I know from my research that both union and business leaders are well aware of the risks inherent in the new corporate system and giving them serious thought.

In an increasingly angry world, these hubs could become a major flashpoint: it will be fascinating to see whether unions begin trying to capitalise.

(from: theloadstar.co.uk/theconversation.com, January 5th 2018)

STUDIES & RESEARCH

LOW-EMISSIONS OCEAN SHIPS: WHO SHOULD PAY FOR SHIPPING'S GREEN TRANSITION?

Technology options exist for converting ocean-going ships from high-pollution heavy fuel oil, to low-pollution alternative fuels.

But refitting the fleet will be very expensive.

Who should pay for it?

Whether their cargo is wheat, iron ore, or containers full of Chinese-made consumer electronics, ships are by far the most energy-efficient means of getting goods from point A to point B.

Moving a tonne of cargo 100 km by modern freight train takes three or four times as much energy as moving it by container ship.

Truck transport? Ten times as much.

Air freight? Fifty times.

Moving cargo by ship is not only far less energy-intensive than any other freight transport mode; it's also cheaper.

Environmentally and economically, the more cargo is shifted onto ships, the better – though obviously big ships can only move between seaports, and can't travel across land, so others modes of transport, such as electric trains or Tesla's new electric trailer trucks, are needed to move freight to final destinations inland.

Total emissions

The roughly 52,000 large merchant ships plying the seas today (a figure that doesn't include a large number of smaller vessels such as ferries) account for about 2.2 percent of global greenhouse gas (GHG) emissions, according to a study conducted in 2014 for the International Maritime Organisation (IMO).

And total emissions are rising along with increases in the volume of global trade.

Ships generate a lot of unhealthy air pollution as well as carbon emissions.

Nitrous oxides (NO_x) and sulfur oxides (SO_x) from ship smokestacks cause serious air quality damage in port cities, because ships burn heavy fuel oil, or “bunker fuel,” to fuel their generators at anchor, and when coming or going.

Bunker fuel is dense, tarry, dirty fuel.

Ships burn it because their big diesel engines can put up with low-quality fuel, and because it’s cheap.

Since most ships have no filters or other pollution reduction equipment, “NO_x from shipping is set to exceed NO_x from all EU land-based sources in the coming decade,” according to Transport & Environment (T&E), a prominent think-tank with offices in Brussels.

Negotiating cleaner shipping

That’s why the IMO, an intergovernmental body with its headquarters in London, has hosted negotiations for the past several years, aimed at achieving binding global emissions reductions agreements for the shipping sector.

The negotiations are hosted by the IMO’s Marine Environment Protection Committee (MEPC).

T&E’s experts said IMO generally tries to achieve consensus on its policies, and



with nearly every country in the world at the table, as well as legions of lobbyists from the shipping industry, progress on adopting new policies is slow.

In the short run, T&E said, reducing emissions will involve improving the energy

efficiency of ships, for example by fitting them with more efficient propellers, applying low-friction paints to their hulls, or – especially – by reducing their speed: “The amount of fuel used by a ship is proportional to the third power of its speed,” according to T&E clean fuels policy expert Faig Abbasov.

“Slowing down even a little bit can lead to substantial fuel efficiency gains.”

However, Abbasov admitted, slowing down also means taking more days to get from point A to B, and since shipping companies get paid to deliver cargo, that

means reducing the amount of annual income a ship can generate for its owners.

Clean technology options for ships

In the short run, reducing NO_x and SO_x emissions will involve gradually switching to cleaner, but more expensive fuels such as low-sulfur diesel fuel.

That's been agreed in IMO negotiations, and will take effect over the next few years.

But while that will help improve air quality in port cities, it won't do anything to reduce greenhouse gas emissions from shipping.

"Nor would switching to turbine engines powered by natural gas, as some shipping industry lobbyists have proposed," Abbasov said.

"Natural gas is still a fossil fuel."

And since methane – the main component of natural gas – "s a much worse greenhouse gas than carbon dioxide, and some leakage of gas from the fuel supply chain is inevitable, gas turbine ship engines could well be worse in terms of climate impact" than existing fossil-fuelled diesel engines.

In the long run, reducing emissions (including carbon dioxide emissions) will mean bigger and more expensive changes in how ships are powered.

Although it's years away from being agreed, as yet, IMO could eventually require ships to be powered by low-carbon, low-pollution fuel supplies such as synthetic, low-carbon methanol, ammonia, or hydrogen, according to Tristan Smith, a naval architect and professor at University College London (UCL) who is specialised in low-carbon shipping.

Smaller ships with short travel distances, such as local ferries, could be converted to battery-powered electric engines – using the same type of technology that Tesla Motors recently presented a prototype battery-electric trailer truck.

That would help local air quality in ports, and save a lot of fuel.

But it's not a practical option for big, long-distance ocean-going ships, Smith told DW.

Is ammonia the fuel of the future for shipping?

Ammonia could be a solution for ocean-going ships.

Its chemical formula is NH₄.

Given that nitrogen (N₂) is the principal component of air, and hydrogen is found in abundance as part of every water molecule (H₂O), NH₃ can readily be synthesized in chemical factories by tearing apart N₂ and H₂O molecules and recombining the resultant free nitrogen and hydrogen atoms.

If renewable or nuclear energy were used to power the synthesis process, the resultant ammonia would be a low-carbon fuel.

"Ammonia can be used directly as a fuel, burned in diesel engines, or it can be a way of storing hydrogen for use in fuel cells," T&E's Faig Abbasov told DW.

"In the latter case, ammonia must be cracked into H₂ and nitrogen in on-board reformers, and H₂ is then fed into fuel cells to generate electricity for propulsion.

Ammonia can be produced from renewable electricity.

The only catch is – ammonia is a poison."

Another option, Tristan Smith said, would be hydrogen fuel cells: "There are impressive innovations in fuel cells of the scale relevant to shipping, coming from diverse sources – the data-centre industry, for example."

Refit or new-build?

Clean, low-carbon fuels could be implemented by refitting the existing fuel supply chain and shipping fleet to make use of the new fuels, or by requiring new ships to be designed for such fuels, or both.

But making the transition to clean fuels will require a whole new fuel supply chain as well as changes to ships' power trains, and so it will be very expensive.

A big question is: who should pay?



In April 2017, a coalition of major shipping industry lobby groups (including WCS, the World Shipping Council, and two others) put forward a document at IMO MEPC negotiations, proposing that a global carbon fee could be applied to each tonne of fuel sold.

The proceeds would go into a new “International Maritime Research Board,” which would have “a mandate to direct and fund research and development of new and improved marine propulsion systems, electric generation plants, fuels, and ship designs,” the WCS document said.

R&D is good, but it isn't enough

About 300 million tonnes of heavy fuel oil are sold to fuel ships each year, according to UCL's Tristan Smith.

If the rate of the carbon fee on ship fuels proposed by the WCS were set at a rate of \$10 per tonne, for example, then \$3 billion per year would be made available for R&D and clean-shipping demonstration projects.

Such a levy could enable a leap forward in developing clean shipping technologies, and is worth supporting, Smith said.

But in his view, a levy won't be enough, in and of itself, to generate a timely shift to low-carbon shipping: “Whilst there could be a role for some sort of carbon price or levy,” it should be applied in tandem with IMO regulations that directly require the shipping sector to decarbonize.

T&E's experts agree.

The environmental think-tank has proposed an aggregate carbon dioxide emissions budget or cap for the sector as a whole, on a declining annual schedule over time.

Within that cap, the sector could implement whatever the most cost-effective technologies are to decarbonise shipping.

Ultimately, though, it will be users that pay for the transition to clean shipping, one way or another, since ship-owners will have to pass through any increase in costs.

That's as it should be, Smith said.

But, he added, it's important to organise the transition in a way that presents a level playing field to industry participants, to avoid distorting shipping markets – and to achieve the transition as cost-effectively as possible.

That will require a judicious combination of financial and regulatory instruments.

What combination of instruments should be adopted will be a matter of much contention.

Experts expect it will take the IMO several years to get member governments to agree on a policy package.

(from: hellenicshippingnews.com, January 2nd 2018)

REEFER

Q&A: MAERSK CONTAINER INDUSTRY'S FUTURISTIC REEFER TECH

Søren Leth Johannsen, Chief Commercial Officer of Maersk Container Industry (MCI), spoke to Laurence Doe, Online Editor at Port Technology, at Intermodal Europe 2017 to share his thoughts on how the company and the reefer industry is progressing.

Johannsen has been CCO at Maersk Container Industry since 2005.

Based at the company's R&D and Test centre in Tinglev, Southern Denmark, he is usually found travelling on the road to connect with MCI's customers and partners around the world.

MCI manufactures refrigerated containers, refrigeration machines and dry containers to its customers in the intermodal industry, which covers shipping lines, fruit multinationals and leasing companies.

How could reefer operations at ports improve?

"Seen from MCI's perspective as a reefer container and equipment supplier, we focus on value creation for our customers and this naturally involves the whole transport chain.

We believe that there are inefficiencies and costs also at the terminals presently that we will be able to assist in reducing in the future with our reefers.

This could be smarter ways of surveillance, energy consumption reporting, better interfaces etc.

This will be for both existing and new fleet and we can achieve this by working together along the transport chain and implement new technology together."

What else needs to change?

"I would like to see a more individual cost assessment of the equipment that is coming into the terminals.

Our reefer energy metre, introduced in Spring this year to our Star Cool reefers, is going to give the container lines a transparent way to see the kWh that the reefer uses at the terminal.

Once we start to see more Star Cool reefers or other reefers with energy metres on, I believe we will start to see our customers asking terminals why they are paying a fixed fee.

We are leading the way with this trend but I believe that energy metres will become a standard feature.

I think that's great because in this industry we have been a little bit haunted by the fact that there is little in the way of standards and how to measure power consumption."

What's the customer feedback like for the energy metre?

"The container lines are telling us that they will use it to look at what the cost is to operate a certain shipping lane compared to the freight rates they are charging so they can get the full transparency of what the costs are down to the single box, which is great.



The container lines will also be able to supply real carbon footprint data to their customers.

This will be an important value proposition – especially we when consider airfreight as an alternative."

What has MCI research and development been focusing on recently?

"In the reefer industry you have a PTI (Pre-Trip-Inspection) to check if the machine is functioning correctly, which is carried out by the depot before loading the reefer with cargo.

That is a straightforward operational process that we have reshaped and called ITI, Intelligent Trip Inspection, so that PTI becomes obsolete and instead the reefer can do a self-diagnostic while it is in operation.

This replaces downtime with uptime.

We have also developed an energy saving software that puts produce quality first.

It avoids undershooting compared to the set point while saving energy.

The key is that while the fruit is still warm, we run the cooling system at full capacity, but once the cargo is at set-point temperature we optimise fan and compressor speed to provide exactly the cooling needed to preserve the fruit.

This unique principle has increased the energy efficiency of Star Cool reefers dramatically - we easily talk 50-75% reduction compared to conventional reefers.

The software is being used by a wide range of container lines and fruit multinationals to optimise their reefer operations while taking care of the cargo.

The energy savings will definitely also benefit the terminals."

What benefits has the Intelligent Trip Inspection brought customers so far?

"Transparency, and replacing downtime with uptime.

That they can see how the machines are performing and they can avoid the PTI reducing downtime and improving utilisation."

What innovation can we look forward to from MCI in the future?

"We are pursuing many ways to further digitalise our operational and maintenance services as well as product features.

Top of mind is to make life easier and more efficient for our customers and the service providers from the moment the reefer is in operation."

There's been a lot of excitement about blockchain: do you see how it could help the shipping industry?

"It certainly has interesting perspectives when the shipping industry can track financial records through Blockchain to know where the cargo is, what the cargo is, what has happened with the container to gain full supply chain transparency.

I also believe that the container lines and ports would benefit from a common system and standard.

What is equally important is that the port authorities are on board as this is often a delaying factor due to issues such as bills of lading, documentation, and customs control."

What are your thoughts on MCI appointing Sean S. Fitzgerald as Chief Executive Officer?

"I'm really excited about Sean starting.

He comes with a strong manufacturing and technology background, most recently from an industry which, I think, in many ways, is like ours, and he is very experienced with effective operations, commercial excellence and product management.

He also has the international experience that is required in this truly global industry."

Has the collaboration with Hapag-Lloyd helped MCI understand its products better?

"We have worked with Hapag-Lloyd for many years and were happy to be rewarded the recent order of 3,700 reefers.

During the last four to five years, we have been doing a lot of interesting trials together such as venturing into using our Star Cool reefers with CA for specific produce.

One of the challenges that we've tackled is that farmers grow this produce organically, but once its exposed to SO₂, it loses that status, which is sad for the shipper, trade, and the owner of the reefer box as the chemical reacts extremely aggressively with aluminium, copper, rubber and other components of the container and machinery.



What we've been doing is testing the use of high levels of CO₂ instead of SO₂.

The laboratory results show that CO₂ can replace SO₂ and solve the problem of how to preserve produce, keep it organic and stop container corrosion."

The market is losing interest in specialised reefer transportation, is it because of the reliability of mixed services offered by carriers such as Maersk Line and the strides in development made by innovative reefer specialists such as MCI?

"There is a very aging reefer bulk vessel population of around 25 years old on average, and I don't see the shipyards being really focused on the specialised reefer segment anymore.

So, we are seeing a conversion of traditional reefer bulk operators investing in container vessels with a high utilization of reefer plugs.

What the container lines have been offering is high frequency but sometimes at the expense of transit times.

That has been to the benefit of the specialised reefer trade as they offer fast point-to-point services, which is very important for fresh produce.

We launched our controlled atmosphere system, Star Cool CA, in 2009, which allowed produce to travel for longer in a reefer box.

With CA, we can push past the original limit of 21 days of preservation for bananas, avocado and mango – the big commodities.

After that we looked at the low respiring produces, like blueberries, for which we came up with the method of injecting nitrogen and CO2.

We see that Star Cool CA is really helping the conversion to containers – the operators also see that they get many of the same features as they have on the cargo compartments on the reefer bulk vessels.”

Why has MCI changed its branding?

“We wanted a clear and unified brand identity in line with our growing product portfolio and longer-term ambitions serving the entire container shipping industry.

By retaining and updating the iconic Star Cool crystal, the new product logo pays homage to the creators of the first logo design, who were the engineers responsible for the original Star Cool product.

We have also carried through the Star Cool crystal to the Star Cool Integrated and MCI Box logos.

With this we aim to show our commitment to excellence across all product lines and the value they provide, such as exceptional durability, cargo care, energy efficiency, product quality, customer service and of course our specialism in reefer technology.”

How well has the market received MCI’s new R513A refrigerant system for Star Cool containers?

“Hapag-Lloyd is the first liner to broadly introduce the R513A refrigerant system into their fleet with their recent Star Cool order.

In general, the market can regard it as an insurance that the machine you’re buying won’t become obsolete and that your old fleet of reefers won’t become obsolete because we have a retrofit.

The price is still slightly higher compared to R-134a traditionally used.

But, with the new regulations, the price difference between the old and new will diminish over time and then we will start to see a switch.

That is the whole purpose of it, to make sure you have a fleet that has an alternative refrigerant.

We would like to drive it further, which will require new platforms, and when we introduce a new platform we need to ensure that it comes down to a GWP of 1% benchmark only, and that will only be through natural refrigerants.

The container lines are not keen on continuing to use artificial refrigerants.

They want to get away from that because of the risks involved with using certain chemicals such as pricing, patents, availability, they can also have a problem with counterfeit products – a big issue a couple of years ago, so they want to get away from that.

We haven't seen a great demand for natural solutions on new platforms yet, but I wouldn't be surprised if we see that slowly building up next year, when we see the prices on the old refrigerants really increase.

We believe in propane from a performance and a technical point of view however at the end of the day, we will work with our customers to find and develop the best solution and we have the capabilities to do so."

(from: porttechnology.org, December 21st 2017)

SAFETY & SECURITY

US PORTS STEP UP CYBER SECURITY DEFENCES TO REDUCE RISK OF ATTACK

US port authorities are urgently seeking ways to prevent terminal operating IT systems from cyber attack while still sharing information to improve supply chain performance.

Renewed urgency has been triggered by the June hack on the Maersk Group, which was an industry-wide wake-up call.

Port authorities told JOC's Port Performance North America Conference that they had taken steps to assess the security of their computer systems.

Port of Virginia CEO John Reinhart said the port believes that it is no longer a question of "if" an attack happens, but "when", reported IHS Media.



"I think we are all in the same place," Mr Reinhart told the conference, speaking on a panel with five other port heads who had examined the problem.

"Let's assume we are going to get hit.

How quickly can we shut it down and then get it back into operations?

And try to shorten the time to recover.

So it's one of the things that keeps us all awake at night," Mr Reinhart said.

However, that task is made more complicated by the rising demand for ports and other stakeholders in the supply chain to "connect" with each other, said the Northwest Seaports Alliance chief operating officer Dustin Stoker.

Demands by beneficial cargo owners (BCOs), logistics providers and other stakeholders in the supply chain for more "visibility", so that they can better

track cargo and prepare for its arrival, increasingly require players to share information.

That requires their computer systems to talk to each other, which potentially could provide an entry point for a cyber attack.

So even as the ports and other stakeholders "are doing the right thing and trying to connect, trying to get more stakeholders to exchange data", Mr Stoker said, they are also raising the risk of a hack.

That risk was smaller in the past, because if a single terminal fell victim to a cyber attack, it was only one terminal not the entire network, as could happen now, he said.

"So security becomes ever more important as we are doing the right thing in trying to integrate the supply chain," he said.

"The cyber security portion is going to become ever more a risk factor that we have got to make sure we are accounting for."

The attack on Maersk by a virus dubbed Not Petya was part of an attack that compromised an estimated 2,000 systems in Europe and North America, according to computer security firm Kaspersky Labs.

Aside from the shipping line business, Maersk units affected by the virus included its terminal operating arm APM Terminals, and its forwarding unit, Damco.

Two cyber specialists speaking on a different panel at the conference said that although the attack heightened the shipping industry's awareness of the need to prepare for cyber attacks, many companies are still vulnerable to major disruption from such an attack.

Yet many companies have taken few serious steps to protect themselves, said law firm Mitchell Silberberg & Knupp partner Susan Kohn Ross.

Ms Kohn Ross said she sees a lot of companies, especially smaller companies, who have the attitude of: "Jeez, I can't do anything about it anyway.

So I am just going to hope for the best."

The port executives, however, said they regard cyber security as a top priority.

Although companies cannot completely eradicate the possibility of an attack, they can limit the risk, and the impact, said Ms Kohn Ross.

That includes looking at all the ways that external computers connect to a corporate computer system and offer a hacker a potential way in.

That list now includes smart phones and the "internet of things" (IoT), including webcams, refrigerators and televisions.

(from: seanews.com.tr, January 2nd 2018)

ON THE CALENDAR

- 24/01/2018 – 25/01/2018 Mauritius 12th Indian Ocean Ports and Logistics 2018
- 07/03/2018 – 09/03/2018 Padova Green Logistics Expo
- 28/03/2018 - 29/03/2018 Beira 19th Intermodal Africa 2018
- 18/04/2018 - 19/04/2018 Livorno 6th MED Ports 2018
- 30/05/2018 - 31/05/2018 Varna 7th Black Sea Ports and Shipping 2018
- 04/07/2018 – 05/07/2018 Johor 16th ASEAN Ports & Shipping 2018
- 24/09/2018 – 29/09/2018 Napoli Naples Shipping Week 2018
- 26/09/2018 – 27/09/2018 Riga 2nd Baltic Sea Ports & Shipping 2018
- 24/10/2018 – 25/10/2018 Aqaba 15th Trans Middle East 2018
- 28/11/2018 – 29/11/2018 Accra 20th Intermodal Africa 2018
- 30/01/2019 – 31/01/2019 Kuwait City 16th Trans Middle East 2019
- 20/02/2019 – 21/02/2019 Manila 10th Philippine Ports and Shipping 2019
- 20/03/2019 – 21/03/2019 Mombasa 21st Intermodal Africa 2019

The Secretariat of C.I.S.Co. is able to communicate detailed information on the programs of all the events and how to participate.

