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Official Journal of the International Association of Ports and Harbors

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Biometric scanning of hands and fingers is being incorporated into many ports' security infrastructure Photo: iStockphoto

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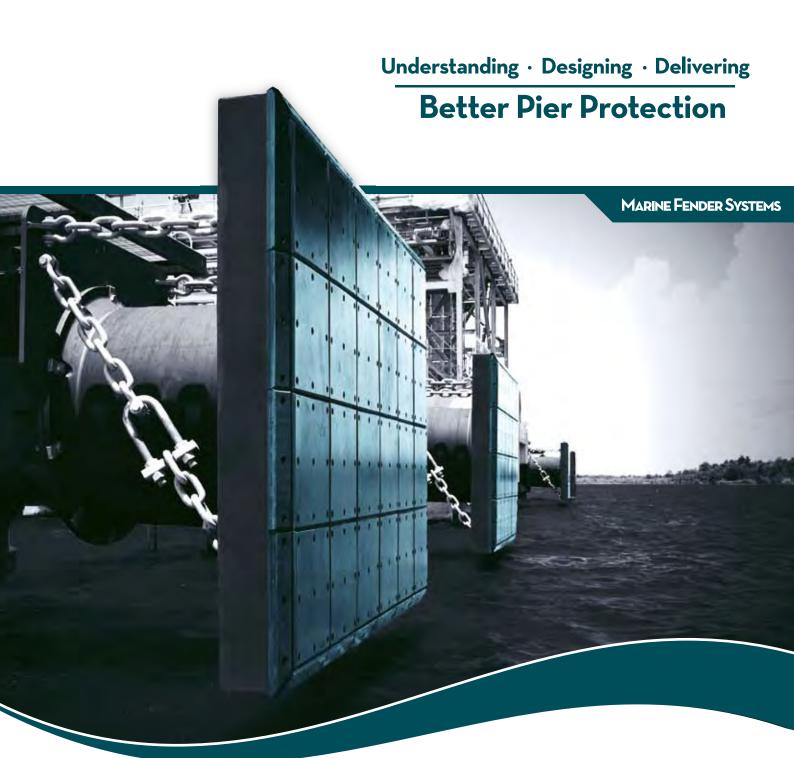




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PORTS & HARBORS

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ajor ports have seen steady growth in throughput despite the fluctuations in the value of the euro caused by the financial crisis in Greece. We hope that the global economy will recover firmly and quickly return to a pre-crisis level.

It was against this backdrop that a successful IAPH World Ports Forum and Mid-term Board Meeting took place in Savannah, Georgia, which was attended by more than 100 delegates.

Several topical issues were discussed including the impact of the economic slowdown on the ports industry and how it has changed the way logistics providers do business. Safety and the environment were also on the agenda, in keeping with IAPH's commitment to these issues, with presentations on 'Protecting maritime trade' and 'Greening the supply chain'. Delegates shared their views on the many new directions being taken by ports.

The IAPH technical committees also met in Savannah to discuss the intermediate results of their work plans. Improvements to the

We hope that the global economy will recover firmly

IAPH website were discussed as well as port-related legal issues. The Port Planning and Development Committee reported that it has completed two projects – Port Financing and Economic Impacts of Port Development. The final reports are available on the IAPH website.

The basic framework of the Busan World Ports Conference from 23 to 27 May next year, including the

registration fee and overall agenda, was approved at the board meeting. Thanks to the efforts of Busan Port Authority we can look forward to an exciting and stimulating conference next year.

The Board of Directors also unanimously adopted a Resolution on Piracy in light of the recent increase in piracy acts, particularly in Somali waters. As the leading association for the ports industry, IAPH expressed its support for seafarers and stakeholders associated with shipping. The accounts for 2009 were settled and new members of Executive Committee were confirmed. It was also agreed that Israel would host the next mid-term meeting in 2012.

All these events were made possible thanks to the tremendous efforts of the host, Georgia Ports Authority. I would like to take this opportunity to express my deepest appreciation to Curtis Foltz and his excellent staff at GPA. PH

Port updates

JWP BACK ON TRACK

The planned 2.7M teu JadeWeserPort at Wilhelmshaven is now due to open in August 2012 – nine months later than planned. The accord, signed by port landlord JWP Realisierungs and concessionaires Eurogate and Maersk, ends months of uncertainty over the commissioning of the facility.

SPANISH PORT REFORM

Spain's parliament has passed a ports reform bill aimed at improving competitiveness. The bill had been amended to curtail the threat of strike action by stevedores. Stevedores from the current labour pool will continue to handle ro-ro trades, but Spain's minister of public works, José Blanco, claimed reforms would lead to a 2.5% annual growth at major ports, thanks to a reduction in costs for port users.

ZEEBRUGGE BUY-IN

APM Terminals and Shanghai International Port Group (SIPG) have sealed a deal whereby SIPG will acquire a 25% share of APM Terminals Zeebrugge for €27.16M (\$33.7M). "We celebrate that we have taken our relationship and mutual commitment to a new phase," stated APMT's CEO for the Asia-Pacific Region, Martin Gaard Christiansen, at the signing. APMT and SIPG are co-investors in the 4M teu annual capacity Shanghai East Container Terminal.

CANAVERAL'S TANKS

Canaveral Port Authority and energy trader Vitol have celebrated the opening of the new \$120M Seaport Canaveral. The 24 storage tanks, located on the north side of the port, will be used for fuel oil, gasoline, jet fuel and bio-diesel products. Seaport Canaveral is the single largest investment in the port's history.

ANTWERP-BRAZIL DEAL

Antwerp Port Authority has agreed an MoU with Brazil's ports during a visit in May by the Belgian port's CEO, Eddy Bruyninckx. APEC-Antwerp/Flanders Port Training will organise port-related training and help on further development and modernisation of their partner's port infrastructure.



Deepwater Horizon surrounded by skimming vessels

Gulf ports take precautions

US Gulf ports have taken precautions to try to prevent oil from the *Deepwater Horizon* gusher from entering their channels and harbors. Both the Port of New Orleans and the Port of Mobile – now also threatened by the spill – have set up several decontamination sites that are standing by to clean oil from ships. Ships have been advised to manoeuvre around oil slicks where possible to avoid the heavier oil.

The National Oceanic and Atmospheric Administration recently established a new ship anchorage site at the mouth of the Mississippi River for ships to undergo inspection and oil decontamination before entering the Port of New Orleans.

Several such sites were set up after 22 April, when the *Deepwater Horizon* rig capsized and the Macondo well ruptured. As *P&H* went to press, an estimated 50M gallons of oil had bled into the Gulf, devastating a 100km stretch of coastline. A containment cap on the ruptured well had partly reduced the spill, but fears are growing that the hurricane season will exacerbate oil pollution along Gulf coasts.

Inbound and outbound cleaning stations have been set up both offshore and inside the Southwest Pass, the main shipping channel for the Port of New Orleans. "Only a handful of ships have had to undergo cleaning and have only caused delays of up to 45 minutes," Port of New Orleans spokesman Chris Bonura told *P&H*.

The US Coast Guard has also established an offshore vessel decontamination site at the Port



Beach oil spill efforts on the Louisiana shoreline



USCG vessels have been busy skimming oil since April

of Mobile's anchorage. Vessels inbound to the port have continued to skirt the spill area where possible.

The Port of Mobile said in June it did not anticipate closures or delays despite oil coming ashore on the Alabama coastline. "With contingency plans in place to handle vessels in the event heavy oil hits our channel, we do not foresee any reason to close [Mobile] and further disrupt our economy," said James Lyons, director and CEO of Alabama State Port Authority.

Government agencies have also mobilised their resources to prepare for surface oil slowing down shipping.

The fact that the oil is escaping so far below the surface may have contributed to the relatively light coating of ship hulls so far. "This is very different to a tanker spill – the oil is spread out because it's coming up through the water column and the currents are going to act on it subsea," explained Lt Michael Patterson of the US Coast Guard.

Early August is still seen as the outside cut-off for plugging the leaks, by which time operator BP is expected to have drilled two relief wells at the site down to depths of 5,000m. Heavy fluid and then concrete will be used to stop the oil flows.

Behind China-Israel accord

China and Israel have signed a deal to increase trade to boost shipping volumes. According to IHS Global Insight, the agreement will pave the way for a "significant" extension of total credit, allowing for up to \$400M in transactions, a 50% increase on previous years. China-Israel trade is already thought to have topped \$4Bn, added Global Insight.

Israeli shipping company Zim

stands to reap the rewards of the deal, especially given its recent capital injection of \$450M to strengthen its business capacity with key partners.

Zim's finance chief, Allon Raveh, declared that the cash boost and company restructuring had allowed the company to "reinvent itself" in terms of stability and operational performance.

Israel has been seeking to

bolster co-operation with China as growth falters in Europe, IHS Global Insight pointed out, noting that Israeli exporters are reeling from the sharp depreciation of the euro.

The China-Israel trade deal will benefit Israeli exporters that use shipping by providing them with incentives such as "fast, accessible and simple credit" while facilitating business.

New targets for Vietnamese shipping

Vietnam has set new targets to ensure that the shipping and shipbuilding sectors contribute more than half of its GDP within a decade.

Do Duc Tien, the deputy director-general of Vietnam Maritime Administration, told government-run media outlets: "With the support of foreign and local investors, our maritime economy could contribute 53–55% of GDP by 2020."

This would be a dramatic rise from the current 30% the sector contributes. It is the first time a top bureaucrat has been so candid about Vietnam's

maritime ambitions – which could set the country on a collision course with Japan, South Korea and China.

Vietnam would develop its national fleet to a capacity of 8.5–9.5M dwt, able to carry 110–126M tonnes of commodities a year by 2015, he explained, and nearly 13.5M dwt and double the freight by 2020.

The fleet of nearly 1,600 ships totalled 6.3M dwt last year, up from 1,200 ships and 4.38M dwt in 2007.

Ho Kim Lan, secretary-general of the Vietnam Ports Association, acknowledged that the scheme would significantly shake up shipping.

JNPT bids to be finalised

The bidding process for the fourth container terminal at Jawaharlal Nehru Port Trust (JNPT) will be completed by the end of the year, deputy chairman N N Kumar told *P&H* at the India Ports and Logistics Conference in Mumbai.

Kumar, who is also the interim chairman of the port, confirmed that, of the nine bidders, seven have qualified for the next phase of screening.

As one of India's more ambitious port projects, it involves conversion of the existing 300m long liquid cargo berth into a container berth. This will be extended by 700m enabling the new terminal to handle 2.4M teu annually.

The first phase is targeted for completion in 2013 at a cost of Rs40Bn (\$850M). Another 1,000m berth will be constructed in the second phase for which the timeline has not been set. The two berths together will be able to handle a total of 5M teu in a year.



Bidding for a fourth terminal at JNPT will be completed this year

The three terminals at JNPT together handled a record 4.06M teu during fiscal year 2009/10 ending 31 March.

While acknowledging efforts made by the Indian government

to speed up implementation of port projects, many delegates told *Ports & Harbors* that they were sceptical that mega projects at major ports such as JNPT would attract operators.

Port updates

VIRGINIAN ACCORD

Virginia Port Authority is to lease APM Terminals' Portsmouth, Virginia, terminal for 20 years at \$40M a year. Yearly volume incentives could push the value of the deal higher.

Negotiations over the terms had been in hand for almost two years. APMT's Portsmouth facility is the third-largest container terminal in the USA.

FINNISH EXPORTS HIT

Finland's port workers' strike in March damaged the country's exports, according to IHS Global Insight.

Exports in March – including paper, machinery, transport equipment and electronic products – contracted by 3% year-on-year, according to data from Finland's National Board of Customs.

UK REVIEWS ITS PORTS

The Office of Fair Trading has begun an examination of ownership and control across the UK's inventory of economic infrastructure, including ports. The study will also cover airports, car parks, and energy and water networks to assess how different kinds of infrastructure ownership affect outcomes for consumers in these markets. A Conservative-Liberal Democrat coalition government has been in power in Britain since May.

THAMESPORT ENERGY

London Thamesport has taken delivery of a second transformer for BritNed — a joint venture to construct an electricity link between the Isle of Grain in the UK and Maasvlakte, Rotterdam. The transformer is one of 14 destined for the project, which are designed to ensure an efficient connection between the transmission networks in Great Britain (400kV) and the Netherlands (380kV).

SECURITY REMINDER

India has reacted to intelligence warnings about possible seaborne terrorist attacks by reiterating its port security requirements. Its ports have reissued circulars demanding crew lists and pre-arrival notification of merchant vessels entering Indian ports be submitted to the navy, coastguards and the DG of Shipping.

Port updates

SOVFRACHT EXITS PORT

Multimodal transport group Sovfracht has decided to sell out of two port terminals in the Russian port of St Petersburg. The company said it wants to dispose of its stake in the Sovmortrans and Sterch terminals as part of its strategy to exit the maritime end of the transport sector, in order to focus on logistics and land transport.

OFFSHORE STORE DEAL

Bremerhaven, Europe's fourth-largest container port, has won a two-year contract — with a one-year option period attached — to provide storage for German utility group RWE. Starting mid-2011, the German port will use 8% of its 8M teu capacity to store and handle windmill equipment for the 300MW Nordsee Ost wind park developed by RWE Innogy.

KHERSON GRAIN

Construction is under way on a new grain complex at Ukraine's port of Kherson. Costing about \$4M, the facility will occupy 0.5ha, have a 24,000-tonne capacity and be able to unload 350 tonnes an hour from railway wagons and 250 tonnes from trucks. The complex will be built in two phases: the first focusing on the logistics infrastructure, the second the actual expansion.

PORTSMOUTH LINKSPAN

New investment at the UK's
Portsmouth Commercial Port has
meant the installation of a new
linkspan drawbridge on its number
two ferry berth, increasing the
flexibility of its operations. New
vessels can now be accommodated and
ferries transferred from other berths,
allowing uninterrupted service in the
event of a vessel being out of schedule.
LD Lines' fast ferry Norman Arrow is
already using the new linkspan, as is
P&O's Pride of Bilbao.

CREATING CORRIDORS

The \$750M Maputo Corridor project will see trade through Mozambique's main port – currently being dredged to 9.4m – leap to 48.6M tonnes a year by 2030, hopes Rui Santana Afonso, the port's development director.



Great Yarmouth expectations

Ports on the UK's east coast are vying for contracts to construct and transport wind turbines to the world's biggest offshore wind energy projects, which will be built later this decade in North Sea waters up to 60m in depth. EastPortUK, in Great Yarmouth, has staked its claim by

homeporting two self-propelled jack-up vessels that are purpose-built for installing turbines, in its recently completed \$110M multipurpose outer harbor.

The 'Seajacks' are owned by private equity firm Riverstone Holdings, which is planning a new office/warehouse complex close

The jack-up vessel *Kraken* alongside, now homeported in Great Yarmouth

to the deepwater harbor to support its operations, currently focused on two Round Two offshore wind projects – Greater Gabbard off the Suffolk coast and Walney in the Irish Sea.

P&H has learned that EastPortUK has held exploratory talks with several consortia that have won Round Three contracts to build North Sea windfarms, including East Anglian Offshore Wind, the group chosen to build a 1,000-turbine farm near Great Yarmouth.

East Anglian Offshore's interest in the port has been endorsed by its programme director Jason Martin. "With a deepwater harbor, generous quay space and available land, EastPort UK provides an attractive offering for developers and manufacturers of offshore windfarms. We have been impressed by the strong local support for development. The east of England is well located to capitalise on the new opportunities that are arising in the European offshore wind market," Martin said.

EastPortUK CEO Eddie Freeman said he believed the port had the facilities, the experience and the location to service the UK's Round Two and Round Three windfarm developments.

The Port of Great Yarmouth, comprising a deepwater harbor and river port, has been privately owned and operated since 2007.

Commodities get stuffed in Charleston

Box carriers good at stuffing commodities into containers could soon benefit from a new public-private partnership at the Port of Charleston.

The South Carolina State Ports Authority (SCSPA) is teaming up with 14 rail-served warehouses near the port in a marketing and sales scheme targeting exports such as cotton, lumber, wood pulp and food products. The commodities will be transferred from rail to ocean containers at the nearby warehouses.

Transferring commodity cargo – typically heavier than import containers loaded with finished goods – saves the shipper transportation costs while cutting the pollution that would have come from trucking

the cargo to port, the port authority explained.

If the partnership is successful in generating more exports, box ship operators will benefit from the port's 15.5m-deep channel, allowing vessels to take on heavier export loads and additional containers to fill vessels to capacity. "Having the deepest water in the southeast US allows the carriers to really max out export loads," said SCSPA president Jim Newsome. He added that for every foot (30cm) of water gained, an ocean carrier can handle about 100 additional loaded 40ft containers. "That's good news for everyone involved in the movement of that cargo, from the warehousers to the dock workers and beyond," he said.



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Cash & Cargo

ZIM RAISES READY CASH

Zim Integrated Shipping Services has taken the first major step in its plan to sell two subsidiaries to raise cash. The Israeli box ship company signed an MoU with a foreign company to acquire an undisclosed Zim subsidiary for \$130–170M, parent company Israel Corp stated. The preliminary agreement is subject to due diligence, which should be concluded by 9 July.

MONTREAL EXPANDS

Montreal's Cast terminal will use C\$5.1M (\$4.8M) from the government and the same amount from the Montreal Port Authority to expand its capacity. Sylvie Vachon, the authority's president and CEO, said the scheme would enable Cast to handle two ships up to 300m in length at the same time. The expansion, to be completed by early 2011, would also expand box handling space.

MARCO POLO RECORD

Demand for funding from the EU's Marco Polo transport scheme has reached a record level this year. The Executive Agency for Competitiveness & Innovation, which manages the programme for the EC, said it has received 101 applications for funding, from 70 in 2009 and 46 in 2008.

ICTSI RIDES BOOM

International Container Terminal Services (ICTSI) posted revenue from 1Q10 port operations of \$120.7M, an increase of 30% on the same quarter last year. EBITDA was \$56.6M, 47% higher than that generated in 2009, while net income attributable to equity holders of \$22.8M was up 107%. The latter figure was mainly due to an increase in volume brought about by a surge in global trade.

FOS STILL GROWING

Throughput at leading French cargo port Marseille-Fos topped 29M tonnes to the end of April for a 6% increase on the first four months of last year, with April traffic underlining the first-quarter upturn in container volumes and local steel and chemicals output. Container traffic rose 17% to 3.3M tonnes and 331,396 teu.



Box exports from the Georgia's port of Savannah rose by 30% year on year in April 2010

Post-Panamax plans

Georgia's lawmakers have approved an allocation of \$68.4M in the state's 2011 budget to deepen Savannah's harbor and allow post-Panamax box ships to call. Under the Savannah Harbor Expansion Project, the Savannah River's navigational channel will be dredged from its current 12.8m to 14.6m.

Completion is expected in 2015, a year after the Panama Canal expansion increases the maximum draught of vessels travelling to and from the US east coast from 12m to 15.2m.

"The completion of these projects will improve Georgia's competitiveness in the

international marketplace and ensure the efficient and timely access of Georgia-based products to markets around the world," said Georgia Port Authority executive director Curtis Foltz.

GPA spokesman Tom Swinson told *P&H* that at high tide the port can already accommodate 6,800teu ships. He added that once expansion is complete, "the tide will no longer be a limiting factor".

In April, a 30.4% year-on-year rise was registered for export containers, the primary driver of an overall increase in container business at the port of 25.7%.

Overall tonnage for April 2010 for

GPA, which oversees the Port of Savannah, increased 16.4%, with auto and machinery volumes at the nearby Port of Brunswick increasing 75.9% year-on-year.

Port officials attributed the gains to the weak US dollar and strong foreign demand for American exports. "Trade projections remain optimistic, with growing economic demand replacing the recent increase caused by inventory replenishment," Foltz explained.

He added that the volume increases in most commodity group sectors "signals a continued economic recovery in most global markets".

Credit crunch returns?

After being waylaid by the private-sector credit crunch, shipping faces a new threat from public debt, warned Hofstra University associate professor Jean-Paul Rodrigue. "This isn't over. The first part of the crisis was commercial default; the second part will be sovereign default," Rodrigue told the Caribbean Shipping Association conference in Curaçao in May.

Terminal investments were made between 2000 and 2008 on faulty growth estimates, he maintained. A portion of pre-crisis throughput was "credit-driven demand", with that 'bubble' now shifted from the private sector to governments (and certain private-sector interests bailed out by governments).

Terminals had been developed and acquired on the assumption that massive compound annual growth rates would trump competitive pressures. The belief, said Rodrigue, was that "the pie would be bigger, so everyone would get their share".

But more conservative growth implies that some terminal facilities will lose out in a 'zero-sum game'. This could lead to closure or divestiture by some terminal owners, predicted Rodrigue.

He added that the past decade's rise in exportdriven economies may be reassessed "because the other side of the coin is that you need importdriven economies".

Maasvlakte progress

Maasvlakte 2, Rotterdam port's land reclamation project, is proceeding according to schedule, with over half the estimated 240M m³ of sand required having been placed by mid June.

The construction of the first quay wall for deepsea container terminal Rotterdam World Gateway is making progress and contractors have started building the hard sea defences. A start has also been made on interface projects to ensure it connects seamlessly to the port.

CMA CGM goes to Mobile

Box operator CMA CGM added the Port of Mobile, Alabama, to its Asia–US east coast rotation in a move that will also open up the Mediterranean, Africa and Middle East to US exporters. CMA CGM is also adding the South Korean port of Busan to the all-water route.

"This new service offers excellent transit times and helps us grow our business with Korea and China," Alabama State Port Authority CEO Jimmy Lyons told *P&H*. "We are particularly excited at the expanded opportunities CMA CGM brings to our regional exporters that trade in the Far East."

The PEX3 rotation will serve Singapore, Hong Kong, Chiwan, Shanghai, Busan, Panama Canal, Manzanillo, Houston, Mobile, Miami, Jacksonville, Savannah, Charleston, Tangiers, Jebel Ali, Singapore.

CMA CGM is a 20% partner in the \$300M container terminal at the Port of Mobile, which opened in 2008, along with Maersk and the port authority. After losing box services during the height of the downturn last year, the PEX3 service adds a fourth service to the port, with a fifth planned before the end of the year, said Lyons.

The French Line also recently announced that it had returned to profits in the first quarter of this year.

Double barge service



Peel Ports is commissioning a double barge service on the Manchester Ship Canal in northern England to handle growing container volumes arriving at the port of Liverpool. The capacity of Peel Ports' existing barge service has doubled from 160teu to 320teu per journey, achieved by tying two barges alongside each other, pushed by a single tug.

The expanded barge service operates between Liverpool and

Manchester, serving as a "green highway" alternative to the motorway network. As well as reducing traffic congestion, each journey will save 180kg of CO₂ emissions, creating the potential to save an additional 2,000 tonnes of CO₂ a year.

Stephen Carr, head of business development for the Port of Liverpool and Manchester Ship Canal, said: "The Port of Liverpool has seen a significant increase in container volumes over the last

Peel Ports is utilising river tranpsort to handle its container increase

few months – driven by supply chains looking for a lower-cost solution to serve northern and central Britain. The further increase in the use of the Ship Canal demonstrates the desire of many organisations to use water to get their product as close to their customers as possible."

The growth in container volumes has been driven by, for example, shipping lines such as Hapag Lloyd and CMA taking advantage of the canal to save on road miles and CO₂ emissions and imports from Ireland being barged to Ellesmere Port.

More than 300,000 containers a year still travel by road between southern UK ports and northwest England, and over a million road journeys are made annually when the the rest of northern Britain and Ireland is included.

"The continued growth of the barge service is a positive example of the capability and potential of the Port of Liverpool and the Manchester Ship Canal and its very important benefits to businesses and the environment," said Carr.

Cash & Cargo

TAMPA'S A2 RATING

Moody's Investor Service has affirmed an A2 rating for Tampa Port Authority's approximately \$145M revenue bonds. It also provided the port authority with a ratings outlook of "stable" for the fiscal year ending September 2009. The port is working on a variety of projects including expansion of its container facilities.

SLOW NY-NJ RECOVERY

Container volumes at Ports of New York and New Jersey rose in the first quarter, but are still recovering from the worst year in a quarter of a century. The second-largest box port area in the US had a 9.8% rise year-on-year to 564,000teu, while exports were up 9.4%. The port's quarterly box volumes were still 6% below 2008 volumes for the same period.

COLOMBO BOX SURGE

Box cargo volumes at Colombo have risen significantly in 1Q10, even exceeding the numbers handled in the corresponding period in 2008 before the recession.

From January to March, Colombo handled 993,166 teu, an increase of 27% from 1009, according to the Sri Lanka Ports Authority. The port, which is a major transhipment centre for South Asia cargo, handled a record 360,861 teu in March.

BARCELONA RAIL LINK

Barcelona Port Authority has agreed to invest €9.1M (\$11.2M) in a new standard-gauge rail link between two terminals and the French border. The line will connect the port's Principe d'España box terminal and Costa Quay shortsea terminal with the border, the authority said.

STRAIT TALKING

France and Italy plan to ask the UN to bar ships carrying oil and other potentially hazardous cargoes from passing through the Bouches de Bonifacio strait between Corsica and Sardinia. They estimate that 130,000 tonnes of dangerous cargo transits the strait each year. They also plan to ask the IMO to class the strait as a Particularly Sensitive Sea Area.

Dredging

BEIRA TO EXPAND

Van Oord has won a Mozambique government contract to create an access channel, berth and turning basin dredging contract worth €37M at the port of Beira. Awarded by Portos e Caminhos de Ferro de Moçambique, the work will take about 18 months to complete. About 3M m³ of the dredged material will be used to reclaim land for a coal terminal.

FREETOWN ORE BERTH

Marine surveyor Fugro has won a €5.3M site investigation contract from Sierra Leone's African Minerals to plan for an ore loading berth and approach channel dredging at the port of Freetown. The project includes nearshore and onshore geophysical surveys and geotechnical laboratory testing and is part of a larger project associated with the development of the Tonkolili iron ore deposit, 200km east of Freetown.

COSTA RICAN PORT

A Royal Haskoning study has put a \$950M price-tag on a plan to build and operate a new port in Costa Rica's eastern Limón province. The 1,500m² terminal will be developed 10km from the existing Moín and Limón port facilities over two phases. The first involves dredging and construction of sea defences and 900m of quay; the second will add 600m of quay. Overall completion is planned for 2016.

VICTORIA GO-AHEAD

Transport Canada has given planning permission for a \$19M, 2.63ha marina to be built in the Port of Victoria. Developers still need to obtain the permission from the city of Victoria. Federal fishing regulations will limit the time available for dredging.

WATERWAYS OF WASTE

Jakarta's waterways are dredged routinely four times a year, but that frequency will need to be increased if they continue to be blocked by cables, pipes and dumped garbage, according to the Jakarta provincial government. The blockages cause floods and traffic jams affecting up to 19 districts adjacent to the waterways.



Fos 2XL is scheduled for completion in 2011

Fos to be reconfigured

Box handling at the Fos deepwater facility in Marseille is to be reconfigured, *P&H* has been told. The existing Graveleau box terminal is likely to be converted – at least in part – to other activities, while six container gantries now at Graveleau will be transferred to the new Fos 2XL terminal.

Marseille plans to invite proposals to redevelop the

existing terminal under the scheme drawn up by the port's executive board and operators. The terminal will continue to handle containers, but can also be used for general cargo, as well as ro-ro and heavy-lift traffic.

Fos 2XL, which is expected to begin operating early next year, had been intended to complement Graveleau, which is near capacity.

The new scheme has been agreed by the port and future Fos 2XL operators Portsynergy (jointly owned by CMA CGM and DP World) and Mediterranean Shipping Company.

Trade union officials at Fos said they had already been given a written guarantee that bids for the Graveleau terminal would maintain its activity at a good level.

Not all ports to benefit from canal

Panama Canal expansion will leave some US and Caribbean ports disappointed, speakers told the Caribbean Shipping Association conference in May. "There will be a boom in Caribbean transhipment, with smaller ships calling in US ports than many US ports foresee," predicted Halcrow maritime sector director John Saylor. Relatively few US east coast and Gulf coast ports will be able to unload the larger ships efficiently, he said.

Hofstra University associate professor Jean-Paul Rodrigue cited the "global equatorial conveyor belt" scenario. When the expanded Panama Canal reaches capacity parity with the Suez Canal in 2014, carriers could develop round-the-world post-Panamax strings and serve America via feeders from Caribbean hubs.

Not all Caribbean hubs will benefit. "It would make sense for carriers to select the larger hubs for the larger ships and discard smaller hubs," Rodrigue suggested to delegates.

Both Rodrigue and Saylor noted the possibility that US west coast ports might compete successfully with the Panama Canal, paring deployment impacts when the waterway expands.

"Is it possible that Panama could lose market share even with the expansion? Yes: it's not Panama's call; it's the carriers' call," asserted Saylor.

Saudi moves forward with privatisation

Saudi Arabia has taken a step towards privatising its ports by announcing that it will establish an independent company to manage the facilities.

No timing was given for the start of operations, but facilities

involved with oil are excluded from the privatisation.

The scheme covers six commercial ports and two industrial ports, plus a ninth port to be developed at Al Lith on the Red Sea coast. Planning is under way for Al Lith, which is intended as a back-up port for Jeddah.

Saudi transport minister Jabara Al-Seraisry said his government has spent about 40Bn riyals (\$10.7Bn) on port development in the Red Sea and the Gulf.

More ore for Atlas

Western Australian mining company Atlas Iron has struck a deal with Port Hedland to boost its sales at a time of strong iron ore prices.

Port Hedland Port Authority has granted Atlas permission to make additional shipments between June and September 2010 from the port's Berth 1, ahead of the commissioning of the new Utah Point common user facility.

Atlas will export up to one shipment a month in Panamax vessels, enabling 180,000–240,000 tonnes to be exported, while the company concurrently accumulates a substantial ore stockpile for Utah Point, due to open later this year.

Atlas MD David Flanagan said the company expected to generate strong operating cashflows, even after allowing for the modest additional costs of using smaller ships.

Poole makes splash in 1Q10

The Port of Poole, on England's south coast, has increased its bulk-carrying operation, reported James Stewart, the port's CEO. The recent boost in business includes additional exports of clay to Spain – work that will be welcome at Poole to offset a 20% downturn experienced in last year's economic crisis, Stewart said.

The port will continue to focus mainly on shortsea shipping, he added. Poole's future projects include a review of its moorings policy, the installation of an LPG tank and the purchase of a new LPG-run plant.

Stewart said that last year he attended a meeting regarding the Proposse Project, which is assessing the possibility of container and ro-ro services between Poole and Portugal, Spain, France and Ireland.

Honduras cruising planned

Developers have confirmed plans for the first mainland cruise port in Honduras, Banana Coast, to be located in Trujillo Bay. The \$20M project will feature a new pier capable of handling two post-Panamax vessels and 4,600m² of retail space. The pier is expected to be open in 2012. Before that, Banana Coast is seeking cruise customers that will anchor in Trujillo Bay and bring passengers in by tender.

The project is being developed by Grande Trujillo Authoridad (GTA), a partnership between the municipality of Trujillo, local landowners led by Life Vision Properties, and Miami's Global Destinations Development. "Discussions with several premium cruise lines are already under way," said GTA, noting that the project has been under discussion since 2004. "We are putting together the final pieces of what will become the western Caribbean's newest cruise destination," added Life Vision CEO Randy Jorgensen. While there are currently no large-ship calls to mainland Honduras, Bay Islands – particularly Roatan – have generated considerable cruise business in recent years.

Freight terminal for Cochin



Construction work at Vallarpadam terminal, Cochin

DHL has enhanced its Indian freight services to take advantage of a new ocean cargo terminal in Cochin, on the southwest coast. The less-than-container-load (LCL) weekly service connects the port with Europe and North America

via Colombo in Sri Lanka.

The service, which began in early May, is operated by DHL's inhouse carrier Danmar Lines and is intended to reduce transit time by up to three days for businesses such as those engaged in trading

spices, palm oil and coir. Its introduction has been prompted by Cochin's growth as a hub for India's export-import trade.

The port has been earmarked as a major container transhipment facility to rival Colombo, which currently skims off considerable quantities of cargo from India. The terminal, on Vallarpadam Island, to be operated by DP World, will be built in three phases, with the first-phase construction due for completion by June. Starting from about 600,000teu a year, the port will be able to take 8,000teu ships and handle about 3M teu annually when complete in 2014.

DHL has broader plans to expand LCL services globally, Christoph Remund, chief executive officer of DHL Lemuir Logistics India, disclosed recently.

Dredging

HAZIRA BERTH OPENS

Access channel dredging is still under way at Hazira, India, but the 53,000dwt bulker *Malavika* was recently able to inaugurate the port's newly constructed 550m-long deepwater berth. Built by Essar Shipping Ports & Logistics, and one of India's largest dry bulk terminals at 27.2M tonnes per year capacity, the project is part of a drive to increase capacity from 76M to 158M by 2013.

SYDNEY LOOKS TO SUEZ

Nova Scotia's Sydney Marine Group has plans to dredge Sydney Harbour at a cost of C\$38M (\$36M). The Canadian group aims to develop the port's cargo capacity to cash in on ships coming through the Suez Canal and wants to build a dedicated box terminal costing an estimated \$189M. The local Cape Breton Regional Municipality has pledged \$1.8M towards the dredging.

GARDEN ISLAND FEARS

Plans to dredge Sydney Harbour's
Garden Island area are causing concern
that it will spread contaminated
sediment. The Australian harbour's
sediment is polluted by tributyltin
(TBT) from anti-fouling paints formerly
used on commercial and naval vessels.
Local media suggested that dredging
will adversely affect marine life and
even human health when it is
transported through residential areas
to a disposal site in western Sydney.

NAVY AIDS JAXPORT

The Port of Jacksonville has commended a dredging project authorised by the US Navy at the port's Mayport Naval Station, "It takes about a mile out of our 14-mile post-Panamax deepening project that's under study, helps the cost-benefit ratio for the US Army Corps of Engineers and makes the project more likely," said port spokeswoman Nancy Rubin. Her comments follow tentative approval for the dredging project by the Florida Department of Environmental Protection's Bureau of Beaches and Coastal Systems. The basin will be dredged to 16m, involving the removal of 4.8M m³ that will be sent to offshore disposal sites.



he 2008 financial crisis has been widely described as "unprecedented". As well as unprecedented it was also unforecasted, which is even worse from a risk management perspective. Container volumes in 2009 dipped abruptly by between 15% and 30% year-on-year, depending on the location, in a world that had never before experienced such severe and sustained negative growth.

In response to the drop in volumes and revenues, terminal operators and shipping lines have scrambled to renegotiate their commitments. Many lines have tried to postpone or cancel part of their vessel newbuilding programmes and to renegotiate charter rates. In May 2010 it was reported that a South Korean shipyard had received a \$70M cancellation fee for not building three container ships. Lines have also reportedly achieved drastic reductions in terminal tariffs.

Terminal operators, too, have tried to reduce their exposure by renegotiating some of the components of their concession agreements with port operators, such as volume guarantees, deadlines and royalty levels.

It can take 10 years to get a greenfield

terminal project up and running. The pre-crisis motto in the port and shipping industries was, justifiably, to secure and develop new port capacity able to serve the seemingly endless growth of global trade. Port authorities, operators, lines and users were making insistent appeals for more capacity development opportunities, but unsurprisingly toned them down by late 2008. Environmental considerations are gaining wider recognition, which is contributing to the long lead-times. The scarcity of financing adds a further element of complexity.

Recovery might be slower than recent container volumes would suggest. First-quarter 2010 figures on the emblematic Asia–Europe route almost returned to the same levels as in 2008 during the same quarter, but, as observers rightly note, this is fragile and could be shortlived. The rebound may be related to temporary restocking and could still be spoiled for the liner industry by the premature injection of additional tonnage by the shipping lines themselves. In the meantime, renewed concerns about European sovereign debt are dampening the apparently encouraging overall economic news.

True respite from the crisis is generally not expected to be seen before 2011. When recovery does come it will not apply uniformly to all regions. For instance, Brazil has weathered the economic downturn much better than most, but during this time it has commissioned very little new port capacity. In 2008, Brazil was suffering from heavy port congestion and, in spite of an impressive ongoing dredging programme, there are concerns that history might repeat itself when throughput returns. In India too, congestion is already returning to the port complex of Nhava Sheva near Mumbai.

Limiting capacity is a tactic that seems to have worked for the shipping lines. In contrast to reports of widespread over-tonnage, irate shippers are complaining about the difficulties they are experiencing in trying to ensure that their cargo is not short-shipped (see pp 40–41).

Some lines are now offering premium 'priority' freight rates, which guarantee that the cargo will be loaded on the intended vessel. That has prompted some shippers to resort to a practice dubbed 'phantom' or 'ghost' booking, which



endemic. A corrolated widespread container shortage will be a fact of life for shippers over the next six months.

Easy money has gone for the foreseeable future. Ports may also have to adjust their expectations about what can be financed. For example, projects with less than 25% equity investment by the project promoter run the risk of not even being looked at. There has also been a reduction in both the scope and the duration of loans. Against all of these challenges, however, it is still important to seek private money, given that public funding sources have been affected too.

The public-private partnership (PPP) will remain a major vehicle to develop port facilities, but within a reasoned framework. PPPs were meant to attract private-sector efficiencies to the public sector, and to employ private finance where public funds were lacking or could be better used elsewhere. The crisis has not changed this.

Most, if not all, terminal operators have been compelled to realign their portfolios and methods, especially for risk assessment. There has been no significant casualty among the main international port operators, just some restructuring. The players remain the same as in 2008, but they are far more cautious and, as a consequence, the onus is more on the public side to attract private partners to port projects and get them on board.

New PPP port projects will need to be lean, frugal and tailored to realistic and prudent combinations of costs and prospects. The

to make sense, appropriate to the location, topography, realistic volumes and investments.

Recent history has shown us that volume guarantees can be self-deluding. Overambitious, poorly timed or unadapted public tenders are unlikely to find candidates.

Ideally, a project should be progressive and modular, with finely tuned market-related thresholds that trigger staggered phases of investment and expansion. A particularly attractive configuration is when a concession includes an already existing facility – possibly to be overhauled – that can be operated early on during the concession period, providing early cashflow to the concessionaire while the expansion is being constructed.

For projects involving major civil works, the concessionaire should be given some leeway within mutually pre-agreed parameters as regards the rhythm of construction and commissioning of 'slices' of terminal, in accordance with throughput evolution.

Today's 'new normal' will dictate that the public partners of PPPs will need to work on making their tenders for port projects as attractive as possible if they are to appeal to private operators and investors. The post-crisis period will not bring back 'business as usual', but it might bring back business as it should never have ceased to be. PH

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C Public partners of PPPs will need to work on making their tenders for port projects as attractive as possible

Michel Donner: Port consultant





To be sure of protecting your assets, consider the worst-case scenario when buying insurance

orts and terminals are an important sector for the marine insurance industry and the cause of great competition between commercial insurers. Over the past decade the number of insurers and underwriters who have decided to serve this technically demanding group has grown.

Many things can and do go wrong within ports and terminals. More importantly, those that might consider they have little to insure, such as purely landlord ports, may be surprised at the number of possible claims that could be filed against them.

Large main haul ports will have insurance in place with a liability limit of, say, \$100M per accident, probably bought as part of a bulk purchase. The reference point for risk managers is the largest thinkable casualty they can imagine. A marginal, run-down operation in a developing country might have as little as \$500,000 each accident.

Insurance of this kind is usually purchased to cover loss of real estate or equipment caused by some form of disaster. Few incidents of this nature have occurred, but the loss of crane inventory at the Port of Busan, South Korea, in Typhoon Maemi in 2003 should serve as a warning to us all. A large environmental exposure

in the USA would conceivably put the largest insurance policy to the test, but for landlord ports the insurance in place is usually a backstop to a well-run legal and risk management operation where the quality of tenants and their insurances undergoes regular scrutiny.

Landlord ports in many places expend considerable energyonensuring that they have legal and constitutional exposures suited to their quasi-governance roles. Given that this is an industry that has experienced massive change through privatisation, it's important for a port to employ professional expertise when finalising its insurance needs.

The wide spectrum of risks means that clients and their brokers should exercise great care when placing those risks with insurers. A modern port or terminal operation may own a high-value portfolio of property and equipment, often spread out over many locations and perhaps even several countries. The insurance of waterfront property worth hundreds of millions of dollars is no role for an insurer that's short on solvency or, indeed, lacking knowledge of the problems.

Port authorities that are involved in activities away from the waterfront are likely to have a comprehensive policy. A case in point is the Port Authority of New York

o: 'Port in a Bad' supplied by Muii/ iStockphoto

and New Jersey, which owns the World Trade Center. Others own power plants, bus stations, airports, heliports and even farms.

The hands-on port operator will have easy-tounderstand exposures in relation to employees, borrowed employees, the owners of cargo and ships, equipment, quays and wharfs, not to mention liabilities to third parties, governmental authorities and the environment. The operator will supply services, usually on terms described to customers under a user agreement, and will legally attempt to be treated as the servant of the ship, liable for no more than the ship would be. These terms have grown more similar across container ports to make them link in with supply chains' insurance needs.

At first glance, landlord ports have little or no exposures to these operational risks. They sign agreements with their tenants and operating companies and then take a back seat. They are rarely sued. More often, they will observe the leases and agreements by the operating tenants within the port. The landlord port's role and exposure may be defined by law by longstanding port or harbor regulations, or be set out in berth assignations and other user agreements. But the landlord port often remains the ultimate guarantee against legal vacuum. Should a tenant or operator within the port cause harm or loss to the interests of others but subsequently become insolvent or unable to pay – just such a case occurred after a cargo warehouse fire in April this year at an inland container terminal in south Delhi - claimants will very possibly try to hold the landlord liable.

Landlord ports may feel themselves to be remote from operational realities, but there are many opportunities to end up in the front line. Examples are when a tenant goes bankrupt, a ship is operated by an insolvent company or the insurer of an operator has withdrawn its cover for non-payment of premium. Even where a port authority consists of little more than a building full of administrators, exposures may still exist in relation to residual operating staff such as security personnel or lease negotiators, or in relation to the acts of dishonest employees.

Well-managed and understood landlord ports are usually considered 'contingent' risks by insurers, whereby another insured interest will usually respond in the event of a claim. Understanding this is the key

to getting good value when purchasing insurance. Such ports will have a 'working layer' built into a policy, which means that predicted losses will be covered by insurance purchased off of the commercial market. If a working layer is not in place, it will give rise to a yearly 'burning cost', where the forthcoming insurance period is calculated based on previous years' claims. In this case the size of the limits and the value of the insurance guarantee bear thinking about.

Many landlord ports require cover for \$10M each accident and some will buy much more than this. In the absence of any regular pattern of claims, the essential considerations are the quality of the insurance and the certainty that the limit will cover the worst nightmare scenario. In plain words, it is inadvisable to buy very cheap cover from an insurer of limited or mediocre solvency with no experience of large port casualties.

Other exposures may be overlooked by a landlord port, too. Its collection of elderly equipment and quays may be insured only on a current-value basis, which could prove problematic after a storm or earthquake. It may find there is no cover for operational damage caused by tenants or in respect of unoccupied space that has no tenant. The limits of liability under insurances may be along the modest lines of traditional covers where \$10M per accident or occurrence was considered sufficient. And when pilot services are privatised, claimants may attempt to sue the landlord port authority as the employer.

Unanticipated claims have arisen for landlord ports from the activities of pilots, visitors and security contractors; from their responsibilities for buildings, navigation and draught at berths; and from long-term pollution. There are still old, poorly maintained ships under charter and when they sink at berth they may turn out to be uninsured. Suddenly the obscure official from the port office is the man on the spot.

Landlord ports can go for long periods without any sign of a claim or problem, only to be surprised when the improbable rules of fortuity come into play. They often pay little for their insurance and do not lose sleep over their exposures. Complacency is not advised, however. A good risk manager who is paid to fret over and game his exposures and to think what if thoughts is a good addition to any port administration looking to stay ahead of its exposures in the modern world. PH

Gothenburg: a new landlord

Gothenburg port authority acquired landlord status in February this year, and the tendering process to run the three terminals it formerly operated has already been initiated. Port CEO Magnus Kårestedt said the city of Gothenburg had decided to seek specialist operators to run its terminals — ro-ro, car and container — to maximise their profitability. "Now we are a totally separate port authority with no input in the day-to-day running," he told *P&H*. He said the new goals of the port authority were to market the Gothenburg hub effectively to support its operations and concentrate on making the port more efficient.

"We decided it was better to find good private management for each of the three

terminals that already had experience handling other terminals of the same kind," he said. "This move will also allow the port authority to focus on its own business of developing the port as a hub."

The tendering process is being co-ordinated by Jonas Ericson, a mergers and acquisitions specialist at the Gothenburg office of PricewaterhouseCoopers Sweden. He told *P&H* he hoped the process would be completed by early 2011.

A spokesman for the port authority said that Gothenburg's insurance exposure had not changed recently, but would not comment on how the exposure would change once the tendering process had been completed.



Get clear on controcts

Solicitors *Philip Thomas* and *Martin Hill* explain the finer details of what ports and terminals should consider before entering an IT contract

echnology is critical to successful operation in the port or terminal environment. Enormous sums of money are invested in technology every year to increase efficiency, maximise productivity, improve existing technology, enhance safety and boost profitability. Whatever type of technology is being supplied, it is in the interests of both the buyer and the supplier to enter into a properly drafted written contract. Major technology orders that have hit the headlines this year include:

■ Sydney Ports Corporation awarded a \$12M contract to technology company SOFRELOG for the supply of a vessel traffic services system to track more than 4,500 international ship movements annually

■ ABB won a \$40M contract from Zhenhua Port Machinery Co (ZPMC) to supply crane automation at various locations.

For substantial investments like these, both parties need to be very clear that the contract they are about to sign is fit for purpose.

It is common for organisations, particularly those that have a long-standing relationship, to rely on just a verbal understanding or regular course of dealing to govern the terms of their agreement. This approach can create uncertainty for both supplier and customer, leaving them vulnerable if the technology fails or if the relationship breaks down.

A written contract can reduce the scope for any subsequent dispute. It should set out the key terms of the agreement, including details of what is expected of each party. The contract should also allow parties to agree in advance the remedies that should apply if something goes wrong and to agree an appropriate apportionment of risk and liability between them.

The form of written contract that will be most appropriate will generally depend upon the type of technology being supplied. For example, the supply of multimillion-dollar terminal operating software involving a significant projectimplementation timetable will normally require a bespoke,

negotiated contract, whereas for the purchase of off-the-shelf software a set of standard terms and conditions (STC) may suffice. Generally, the STCs used in technology contracts are those of the supplier, but there is a trend for larger buyers with dedicated procurement functions to insist on their own STCs.

Ideally, businesses should aim to secure a reasonably balanced contract. A contract that is one-sided risks damaging goodwill between the parties and may set the agreement up for failure, particularly if it includes unrealistic or unworkable obligations. The parties may also incur significant costs in both management time and legal fees if they have to renegotiate the contract to make it more equitable.

A party that has entered reluctantly into an onerous contract may behave less flexibly when it comes to implementation. For example, a supplier that feels it has been put under pressure to agree to aggressive

pricing may be inclined to charge whenever the customer requests any additional requirements or variations after the contract has been entered into. A balanced contract is a 'win-win' solution for all parties.

Many disputes concerning technology agreements arise from the differences between the customer's expectations of what will be delivered and those of the supplier. Disagreements can emerge not only in relation to the technology itself – the functionality, for example – but also related services such as installation and commissioning. If software maintenance was to be supplied, to what response

times did the supplier commit and what were to be the sanctions for its failure to comply? Best practice is to ensure that the contract sets out in very clear terms the scope of the technology and services should be drafted with input from technical experts wherever possible.

Price and payment provisions can prove contentious in a technology contract. The buyer's objective will be to achieve price certainty through the inclusion of as much of the technology and services in the overall price as possible, giving the supplier minimum opportunity to increase the charges. By contrast, the supplier will want the right to levy incremental charges where the technology or services supplied expands beyond what was envisaged when the contract was signed. If software is licensed on the assumption of a specified terminal throughput volume or a certain number of user licences, the supplier may want a mechanism to increase the licence fee according to any increase in throughput or numbers of users.

A supplier will generally seek to achieve a long contract term, particularly with regard to support agreements, because a guaranteed revenue flow increases profitability and enables it to predict future cash flows more accurately. The buyer usually resists being tied down to a lengthy agreement unless the financial case is compelling, as it will prefer the freedom to take advantage of new and improved technology

as it emerges, possibly from a competing supplier. Too short a contract term can disadvantage the buyer, because it removes the certainty that the supplier will supply technology and services for a set period.

If a port or terminal wishes to transfer its commercial activities, perhaps by selling its business to a third party, it should consider whether it can assign the rights to use the technology to the new operator. Typically, software licences are not transferable without the prior permission of the licensor. Some suppliers charge an additional fee as a condition of giving their consent. The buyer will be in breach of the licence if it seeks to transfer its rights to use the software without consent.

and such a breach may entitle the supplier to terminate the licence or claim damages.

Another essential element of the more complex type of technology contract is what constitutes acceptance of the software. This is a key definition, as it often triggers other provisions of the agreement, notably payment obligations and the commencement of warranty periods. The parties should take time to negotiate this issue carefully at the outset so as to reduce the likelihood of a dispute later.

Limitation of liability is a notoriously contentious point when negotiating technology contracts. The supplier will tend to seek to limit its liability so far as possible, often leaving the buyer with uncapped liability. Conversely, the customer's aim is for the supplier to accept a high liability cap so that, should it ever need to bring a claim against the supplier, losses can be recovered up to the full level of liability.

It is a fine balance to ensure that the contract imposes the right level of liability on the parties. If either sets the liability cap too low, it may be unenforceable on the grounds of unreasonableness, leaving one or other exposed to unlimited liability.

Equally, too high a limit may expose a party to an undesirable level of risk and perhaps the cost of obtaining additional insurance to cover the risk. A

> good starting point is to consider a worstcase scenario arising from the other party's breach of contract or negligence and who is best placed to insure against that risk.

A particular concern for buyers in the current economic climate is the risk of the supplier ceasing to support the software in the future. The buyer can protect against this risk by using escrow provisions. These require the supplier to deposit a copy of the software's source code in escrow with a nominated third party on the basis that the source code would be released to buyers should specific events – such as the supplier's insolvency – occur.

A fee will generally have to be paid for maintaining an escrow arrangement. Suppliers are reluctant to agree to such provisions because their source code is valuable intellectual property. Nevertheless, some suppliers will agree to escrow arrangements if the circumstances for releasing the software are rigidly defined and the nominated escrow agent is a trusted provider.

Wherever an operator invests in technology, it is vital to ensure that there is a written contract in place. Any such contract should be reviewed by professional and technical experts to ensure it is fit for purpose and provides adequate protection for the parties. PH

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allenius Wilhelmsen Logistics (WWL) has been alerting its automotive customers to the regulatory storm about to break upon the shipping industry. It warned that emissions taxes being introduced in the next five years in Europe and North America threaten to increase the cost of sending cargo by sea. "Our customers still may not realise what is about to happen and we urgently need to think through supply-chain assumptions with them," WWL's global head of environment Melanie Moore told P&H.

WWL prides itself on being an environmental pioneer. Five years ago, it anticipated this rise in regulatory shipping costs by unveiling a zero-emissions vessel design, E/S (Environmentally Sound Ship) Orcelle, as its first contribution to a greener industry. Now it has turned its attention landside, unveiling in London a new design concept, the Castor Green Terminal (CGT), which could be a major advance in operators' efforts to eliminate emissions in and around ports.

Castor is the Latin name for the beaver – an endangered species – which WWL has adopted as the brand name for its new design of car terminal.

"WWL is also using the beaver symbol because it shows the connection between land and sea and it's also very industrious, which we like to believe our terminals are as well," said Erik Nyheim, chief operating officer and head of terminals and inland services..

"We want to significantly reduce the carbon

footprint of our terminals," Nyheim said. To reduce the effect of its operations on the environment, WWL has identified nine design 'building blocks' (see box).

WWL's revolutionary car terminal design integrates processing and distribution activities on one multistorey site, optimising its supply chains while eliminating ${\rm CO_2}$ and other harmful emissions from terminal and processing activities.

The terminals will be carefully located to minimise total transport emissions and the environmental impact on neighbouring communities; construction materials will be locally sourced wherever possible, require limited maintenance and be recyclable; energy consumption for lighting, heating, cooling and water will be minimised.

An optimal mix of renewable energy sources to power the terminal will reflect local conditions at each CGT, and port and industrial partners are expected to play a key part in developing these installations.

Renewable electric power from these sources will allow vessels to turn off their engines at berth thereby reducing vessel emissions. Environmental services such as hull and propeller cleaning will be offered, and all equipment used within the terminal will be powered by electricity or by fuel cell. Terminal and processing operations are to be subject to an optimal flow pattern based on lean production techniques, allowing products to move efficiently through processing, storage and



Efficient design... the Castor concept could be in operation by 2020 distribution areas. This integrated approach also aims to eliminate bottlenecks and to generate efficient interchange between road, railway and ocean carriers. Eventually, more than 80% of all WWL's products are expected to leave the terminal by rail.

Waste from all operations, such as workshops, paint shops and washing facilities, will be considered as a resource that may be recycled, used for heating or reused.

Nyheim said that WWL plans to have the foundations of this system in place by 2012, focusing on examples of best practice that are already in operation.



Building blocks

WWL has identified nine issues that are key to its Castor Green Terminal design:

- **1.** Location study will assess the impact on the local community and ecosystems before the terminals are built
- 2. Compact layout and design to minimise impact on local community, including multi-level storage
- 3. Use of recyclable construction materials; type of materials will depend on location
- **4.** Reduce utilities and energy consumption: wind for cooling, solar energy for heating and lighting, and smart lighting to eliminate inefficiencies
- **5.** Optimum mix of renewable energy sources depending on the location
- **6.** Vessel power supply (shore-to-ship power) provided by renewable energy generated by the terminal to limit emissions in the port
- 7. Lean management and lean production to reduce waste in both time and materials, with the aim of having an optimal flow of products through the terminal and fewer movements
- 8. A customer service centre, unique to the Castor Green Terminal, where WWL will invite customers to view the terminal operations and see the products being processed. Customer events and training will be hosted at the centre and the local community will be involved in its activities
- **9.** Waste handled in an appropriate way, either by being recycled, used for heating or reused.

"We already have early prototypes of some of these concepts at our terminals," he pointed out to *P&H*. "For example, at Zeebrugge we already collect and store rainwater and use it as the vehicle washing base and for flushing toilets. All the wash bay water is recycled and used again. We have put sensors in the central lighting system to control the lighting and cut down unnecessary energy use. We have also added extra insulation in the walls and roof so we can control the temperature."

In Baltimore, WWL uses only electric vehicles to transport its workforce around the terminal and exclusively low-sulphur fuel for terminal equipment.

Finally, for its recently completed Melbourne off-dock facility – where WWL offers 'high and heavy' technical services – recycled concrete was used in the construction and its water-sensitive urban design includes rainwater gardens, bio-retention swales and a closed-circuit recycling system. Heat-reducing skylights provide natural lighting and the facility uses natural gas to power the paint shop and also to heat water.

"But hitherto these prototypes have been the result of local initiatives and we want to turn some of them into standard practice across all sites," Nyheim commented.

Between 2013 and 2015, WWL will identify pilot sites and start experimenting with the technology to develop solutions and prepare the full-scale concept. "We hope to incorporate these in a full-scale greenfield CGT by 2020, as well as starting to upgrade our existing terminals," he said, emphasising that the final design had to make financial sense before the first CGT was built.

And how transferable are these concepts to other types of terminal? "We are focused on car and ro-ro terminals, but maybe there could be some inspiration in this for other types of terminals," he replied. PH



ur climate is changing – this is a widely known and accepted fact. Most ports now fully understand why it is changing and many are implementing more environment-friendly modes of operating to prevent further damage to the environment. Less considered are the byproducts of climate change such as sea level rise, to which ports are naturally vulnerable. Port consultants and designers are starting to take sea level rise into account when designing or updating port infrastructure.

Martin Mannion, global head of maritime and ports at consultancy Scott Wilson, believes ports should be nervous about climate change in relation to their infrastructure. Sea level rise is "a gradual thing", he told *P&H*, but ports should start taking it into consideration now, especially if they are planning new developments, and they should, relatively soon, also look at climate-proofing existing installations. "There will be legislation for it eventually," he said, adding that the USA has already started introducing such measures.

"Ports should be preparing in that they should be working to assess the potential local impacts to their facilities and surrounding areas," agreed Austin Becker, a PhD student specialising in environment and resources at Stanford University. Any projections should be taken into account when planning new infrastructure, he advised.

Becker has carried out extensive research into ports' responses to climate change (see *P&H* March) and suggested that ports make it their priority to keep up to date with the latest climate science. "Ports will need to plan in a way that incorporates larger degrees of uncertainty than they have in the past." He told *P&H* that climate projections offer a "probability distribution for potential impacts". He added, however: "The science will never be able to predict with 100% accuracy what the new climate conditions will be." Current projections of sea level rise range from 0.6m to 2m by 2100, he said.

Certain ports are obviously more vulnerable to sea level rise than others. Those in low-lying areas will have a problem in the future; indeed, Mannion told *P&H*: "Some ports will already have a problem."

The areas that face the highest risk are those that experience storm events or are near hurricane belts, Becker pointed out. "The potential doubling of Category Four and Five storms by 2100 could have major consequences. However, other ports that experience flooding and storm events will also be susceptible to changes in these phenomena. Sea level rise is an issue



in many areas as well," he said, adding that new research shows that historically the western Atlantic and Pacific basins have shown the highest sea level rise.

Storm surges are the main concern for many coastal ports, especially those in the eastern Atlantic and western Pacific basins, which are subject to hurricane and typhoon activity. Sea level rise can exacerbate storm surges, Becker explained, adding that ports should consider historical storm events and factor-in more intensive events in the future. They should also consider the contribution that sea level rise will have on storm surge levels.

Ports should assess their risks now by checking their coastline and wave exposure, Mannion asserted. If a port is built on 'soft' ground, due to glacial rebound or soft clay or mud that has not been treated, the port "could be sinking anyway", resulting in a "two-fold problem if they are affected by sea level rise as well".

He advised ports to check the level of the port and quayside with the water level and to look at rainfall levels from regional data sources, such as those supplied by the US Army Corps of Engineers or the Meteorological Office in the UK. If necessary, he suggested, the port should obtain professional help to interpret the data. Ports should be lobbying regional governments to obtain information and secure funding, and also to raise awareness of the issue. He told *P&H*: "Do it now to get an understanding of future expenditure, so that there are no surprises in five years time."

IAPH's Port Planning and Development Committee has taken an active role in raising awareness of the issues and as part of its 2010–2011 work programme has included a project on 'Adaptation measures against climate change'.

Becker believes that specific recommendations will need to be developed at a local level. The types of change that he foresees are: elevating and constructing new facilities to a level appropriate for expected climate conditions at the end of the century; considering how water levels may affect surrounding infrastructure and working with agencies outside the port to ensure the whole port-system is appropriately prepared; constructing buildings to withstand higher wind speeds; and considering potential flooding

As the water rises...

Martin Mannion, of Scott Wilson, listed the possible implications for port facilities as:

- Higher water levels altering vessel elevation in relation to the height of the wharf, possibly affecting the operation of port-side equipment
- Floodwater exceeding the capacity of the existing yard drainage system
- Disruption to operations, such as impacts at container terminals where the area behind the wharf is used for container storage, and costs of damage to goods, plus future insurance costs
- Reducing the viability of operations if the port is regularly affected by flooding and losing customers as a consequence.

events when determining materials storage plans.

Breakwaters are significant elements of a port in relation to sea level rise, said Mannion. If these are not high enough more waves will go over the top. "If a port is on the coast the breakwater is more likely to be damaged, or waves can enter a harbor more easily and damage ships at berth," he commented.

Scott Wilson has been working with the Port of Colombo, Sri Lanka, on its efficiency and expansion project."The breakwaters and reclamation are designed to take into account sea level rise, for example and wave action over an extended lifetime," Mannion said.

Some regions are already being forced to investigate solutions. For example, the San Francisco Bay Area is at risk of flooding from a combination of high tide levels and rising sea levels. California's Climate Change Center believes that sea level rise in the bay could be as much as 1.4m by 2100. The bay's Conservation and Development Commission sponsored a competition to create a concept to address this risk. In response, Moffat & Nichol, in collaboration with Skidmore Owings & Merrill, designed the BayArc – an environmentally sensitive fabric membrane that spans the Golden Gate Bridge, offering flood protection at critical periods.

For ports globally, climate change may not be a threat in the immediate future, but by the end of the century it could be a reality. **PH**

Going deeper

The approach channel and turning basin of Itajaí Port Complex in Brazil is to be dredged to cope with possible flooding. Since the second half of May, dredging companies and consortia have been submitting their bid proposals and technical concepts to the Special Secretariat of Ports.

The winning bidder will carry out the government-funded \$35M dredging project that requires deepening of both the basin and approach channel from 11m to 14m. Dredging works will also allow the entry of larger vessels and have "a major positive effect on the state's economy," said the port.

Teconvi berth two at Itajaí after the flood in November 2008



Secure locally, think globally

IAPH's Port Safety and Security Committee chair, **Peter Mollema**, is optimistic about the wider role of port access information systems

Rotterdam's relationship with its identification credential, XS-Key, goes back to 1998, when it was introduced to make movement of cargo through the port more efficient. The first of two systems was CargoCard, a chip card and biometric hand detection system that ensured the correct driver was collecting their designated container (see panel, right).

Between the September 2001 terrorist attacks on New York and the introduction of the ISPS Code three years later, the port took the opportunity to adapt its existing system to meet its new security obligations. The ISPS Code also stimulated the implementation of PortKey in 2003; it is a similar system to CargoCard but intended for all those regular visitors to the port who are not truck drivers.

Today, the port's logistics and security needs are combined through the two strands of the system, CargoCard and PortKey, which between them have at least 20,000 users.

This example of a port access system demonstrates how simple it can be to integrate two components, security and logistics, that are now essential to a port environment. Yet, surprisingly enough, from a global

Access elsewhere in the world

Antwerp, Belgium	Alphapass		
Ashdod Port, Israel	licensing system for truck drivers and seafarers (P&H, Nov 2009 issue)		
Amsterdam, the Netherlands	CargoCard element of XS-Key		
Felixstowe, UK	RHIDES (see page 28)		
Ghent, Belgium	electronic ID cards (see page 28)		
Helsinki, Finland	access pass		
Rotterdam, the Netherlands	XS-Key		
Hamburg, Germany	identity card		
USA	Transportation Worker Identification Credential (see page 25)		
Zeebrugge, Belgium	Alphapass		
	Source: EU PORTIDS study, individual ports		



Within the Benelux countries, the situation is more encouraging. The XS-Key concept is being implemented beyond Rotterdam, and Amsterdam has adopted the CargoCard system, as have certain hinterland terminals. Large shippers are also starting to adopt CargoCard technology. Lager-manufacturer Heineken, for example, uses it to monitor the drivers and transport of its goods from the brewery to the

Antwerp, in neighbouring Belgium, is one of many ports that are adopting systems similar in principle to XS-Key (see page 28). Now that this

port. This could be considered a first step towards a

national identification card.

type of technology is becoming more widely used there is no reason why it cannot be adopted at an international level. In 2008, a European Union study was carried out to ascertain what systems were already being developed on a case-by-case basis. The study's conclusions suggest that an EU-wide system is a real possibility.

Changing opinions at a national or international level is one thing, but when it first introduced XS-Key, Rotterdam Port Authority had to convince its users of the system's efficacy. It was crucial to get the parties involved to accept it, so the port authority launched a programme to stimulate the process and support the movement.

CargoCard users quickly saw the advantages: shorter stays on the terminal, reduced entry time into the port. The Dutch drivers' organisation,

TNL, was involved in the card's introduction, to reassure the drivers and get their support. When the time came to launch PortKey there was very little resistance, because CargoCard had already been rolled out on a large scale and people could see that it worked.

Initially, many people expressed concerns about their privacy, but the port's partner in XS-Key, Secure Logistics, operates in a very transparent way and most people accessing the system are now happy with it. The port ensured that the privacy policy was in line with national regulations and made sure that the access control system complied with the provisions of the ISPS Code.

One of its many users is the customs department and, although it was not involved in developing the system, it did take part in the trials and now considers that its own access to the port has improved since the credential was introduced. Other users of PortKey are dangerous-goods workers, maintenance workers, river police, port police and ne port doctor.

After the initial implementation phase was completed, the system has proved easy to use. It takes care of itself and is integrated into the port's daily activities.

The technology exists and the data protection is in place; it just needs a co-ordinated response to make it a happen. It also requires courage at both national and European levels to see a common access system as an opportunity rather than a threat.

Ports should aim to look beyond their physical boundaries and search for ways to integrate their security into the wider logistics picture. A co-ordinated vision now could mean a more integrated and streamlined future. **PH**

Peter Mollema is director of port planning and development at the Port of Rotterdam

Part of a port community system

CargoCard and PortKey together make up XS-Key, Port of Rotterdam's access system. It was created by the Rotterdam Port Authority, trade association Deltalinqs and private company Secure Logistics. René Besselink, managing director of Secure Logistics, told *P&H*: "The CargoCard is a community system for transport. The PortKey is a community system for the Port of Rotterdam." In 2003, when PortKey was introduced, it was decided to privatise management of XS-Key, allowing Secure Logistics to develop the system and bring it to the commercial market.

Since its introduction, CargoCard has been updated to incorporate a wide range of security applications, including vehicle registration recognition, truck monitoring and limiting drivers' access to just their own stack of containers. Once a visitor has completed the registration process, access to all participating terminals is possible. This takes place at stations throughout the port, where the visitor swipes the card and places their hand on the biometric reader.

Information about the visitor and their employer is stored on both the card's chip and a central database, but the biometric information is stored on the card only. This information can only be read using Secure Logistics software. The port can allow a person access at any time, but also, by blocking their card, deny them access.

"The use of biometrics guarantees that the card and cardholder belong together," said Besselink. The cards are issued by the company and so the port has very little contact with the administration of the cards. "Secure Logistics is a trusted third party, so the terminals trust the information on the card," he said.

"The fact that you can combine this technology with other systems can be a powerful logistics tool and has a very big future," Peter Mollema, director of Port Planning and Development, told *P&H*. "Overall, the implementation and uptake within the port has been very smooth. The most common query has been regarding hygiene," he said, adding that placing one's hand on the biometric reader carries the same level of exposure as touching door handles and money.

"The Rotterdam Port Authority is lucky that Secure Logistics have jump-started the use of biometric information in the port environment. It is something that many ports in the world should consider when developing their access security," concluded Mollema.





COVER STORY PORT SECURITY



TWIC's final measure

Paying for equipment and seafarer access are weighing heavy on US port operators as the Coast Guard readies the final phase of its ID card, reports **John Gallagher**

A US Coast Guard officer checks a worker's TWIC card in Honolulu S ports have known for years that they will eventually be required to spend significant sums of money – millions of dollars, in some cases – to comply fully with the Transportation Worker Identification Card, or TWIC. What they still do not know is how much they will have to pay or the type of equipment they will need. In addition, they will have to make sure that they are providing the appropriate level

of seafarer access while keeping their port secure.

For ports that are still struggling to find money to pay for anything in the midst of a recession, the good news is that time may be on their side: the US Coast Guard estimates it will not be until 2012 or even later that the final rules for TWIC card reader requirements will be in place.

The down side is that the more time it takes to draw up a final rule the more likely it is that port operators that have already invested in TWIC equipment will find they have spent too much – or not enough.

Compared with what a port will actually need once the rules are in place, "it's possible that the TWIC readers available now may end up costing more money." That, at least, is the view of Susan Monteverde, vice-president of government relations for the American Association of Port Authorities. "How high-risk a port operation is will likely determine how much capability their reader equipment will require, whether they will need biometrics [that can read fingerprints]," she explained to *P&H*.

Ports that handle hazardous materials should already

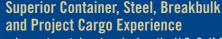
Involvement so far

Enrolment/activation	Measurement
Pre-enrolments	1,299,079
Enrolments	1,583,715
Cards printed	1,598,659
Cards activated	1,452,503
Average enrolment time	8.84 min

Source: US Transportation Security Administration (data correct to 19 May 2010)

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COVER STORY PORT SECURITY

be making plans – if they have not already done so – to upgrade port infrastructure to handle higher-level technology, Monteverde urged. To accommodate any extra electronic cable or wiring associated with high-tech card readers it may be necessary to dig a trench from the port gate to the terminal. But, "if you're a low-risk port, you may want to hold off on purchasing card readers; you might end up being able to get away with continuing to flash a TWIC card," she said.

Monteverde recommends port operators to apply for a federal port security grant to defray the cost of purchasing TWIC reader equipment, and also to support the waiver of the 25% cost-share requirement that's in the Obama administration's budget proposal. "We're going to need political help if we're going to get Congress to waive the cost-share requirement," Monteverde asserted.

Ports also need to continue to take steps to ensure that both US and foreign seafarers registered with TWIC are allowed proper shore access – and those steps are more important to port security than the equipment used to read the cards, seafarer advocates maintain.

While paying the \$132.50 required for a TWIC card theoretically allows the holder to gain unescorted access to and through a port terminal, individual terminal operators still have discretion over the ease of access they offer crew members who want to gain access to shore for personal purposes.

"Port operators and terminal managers should care about proper shore access, because to maintain safe and efficient operations of the vessels that enter their port they have to make sure crew members are being taken care of," Doug Stevenson, director of policy for the Seamen's Church Institute of New York & New Jersey, told *P&H*.

Some terminals, particularly those that deal routinely with hazardous materials and therefore have stepped up their security measures, can make life tough for marine crews, Stevenson said. "They're getting fed up with restrictions that don't make sense, like the threat of being commercially prosecuted for things they wouldn't be prosecuted for if they worked at other

Ports that handle hazardous materials should already be making plans

jobs. That can ultimately have a bigger threat against security – not having good people available to operate the vessel."

Chosen last year by the Coast Guard as one of five TWIC pilot projects last year, the Port of Brownsville, Texas, has had experience of both the technological and the human aspects of TWIC.

The port applied for and received a \$3.7M federal port security grant in 2007 and used much of the grant for the TWIC programme. Their readers, which have biometric capability, have been up and running since December.

"We figured it was inevitable that we would need the readers so we might as well apply for the pilot, work through the kinks and get it over with," Brownsville deputy port director Donna Eymard told *P&H*.

The biggest problem, Eymard continued, was getting staff and port truckers to learn a new routine. "That took up the most time – teaching people where to put their card, showing them where to put their finger on the machine. In the beginning, drivers would hand the guard their cards to let him handle it, but once they got used to using it things went pretty quick."

Eymard said crew access is rarely a problem at the Port of Brownsville. "We gave the port agents escort training if the crew needs to go anywhere, and our local seaman centre has volunteered to [provide transportation]", Eymard said.

She added that when shore access is restricted it usually comes from the ship, not the port. "It's a way [vessel operators] make sure they come in and leave with their full crew," she said. **PH**



The Transportation Worker Identification Card is a biometric system issued by the US Department of Homeland Security through the US Coast Guard. Workers wishing to enter a port unescorted must be enrolled in the scheme. This extends to seafareres, making it different to access passes used at other ports. The ultimate form the credential will take is not yet known. At present it is simply a flash pass that must be shown at checkpoints within the port, but the existing card is capable of holding biometric information too.

Before the USCG can publish a final rule on the requirements US ports will need to comply with the final

'reader' phase of the TWIC programme. To do this it needs to consolidate data collected from the industry as well as the results of port pilot programmes around the country. In December, Brownsville became the first port to finish its programme, but the other pilot schemes, at the Ports of Los Angeles and Long Beach, California, the Port of New York and New Jersey, and the APM terminal at the Port of Virginia, are still in progress.

Based on the status of those projects, the Coast Guard does not expect a notice of proposed rulemaking (NPRM) to be issued before next year. Comments received from the NPRM will go towards formulating a final rule, which will not ready until 2012 at the earliest. "It will depend on the amount of comments we get," Coast Guard Commander David Murk told *P&H*.



Easy RHIDES at Felixstowe

he Port of Felixstowe is urging other UK ports to adopt its biometric truck driver identification system, which it claims both improves security and speeds up vehicle turnaround.

First launched in March 2007, the Road Haulier Identity System (RHIDES) is an identity verification system for truck and lorry drivers requiring access to restricted areas of Felixstowe port. The system was developed in response to the ISPS Code, which requires ports to identify all people in restricted areas and people to prove they have a legitimate reason to be there.

Identification is based on a biometric hand scan of the driver, who must also carry a portable identity card that holds personal and company data on an integrated chip.

The card number is also recorded against every container, making the owner of the card directly accountable for the cargo. At Felixstowe around 15,000 drivers of container lorries have so far been issued with cards and in early 2009 Hutchison Ports (UK) extended the system to Thamesport.

RHIDES has exceeded initial expectations, reported Captain Gary Wilson, head of marine and port services at Felixstowe: "With around 30,000 lorries entering our gates each week we needed a robust system and RHIDES has been such a success it is no longer top of my security agenda, it is just happening in the background. It enables us to meet and probably exceed requirements under ISPS and by linking the system with our terminal operating system, which records container arrivals, we are able to cut



A pocketful of access cards

Public versus private pass

elgium is a good example of an EU member state that would welcome a single Europewide port access card, because its national authority for maritime security has been unable to reach agreement with its ports on what system to adopt. The country's main port, Antwerp, and the Flemish port of Zeebrugge currently use a private-sector security initiative called Alfapass, a paid-for system that contains the holder's personal details and a colour photograph. The biometric data of the holder's handscan is also saved in electronic format on a chip in the card.

The inland port of Ghent – where facilities include an oil terminal and the loading terminal of Benelux's largest steel mill, owned by Arcelor Mittal – met with all the port's stakeholders to discuss joining the Alfapass system. However, the proposal was rejected on the grounds that it was too expensive.

"Arcelor Mittal has over 5,000 employees and, at the time we looked into it, an individual Alfapass valid for only three years cost \in 35 [\$42] to buy, plus an extra \in 30 per card for the [Alfapass] company to handle data management. Here we have a port access card that only costs \in 6," Ghent harbor master Captain Dirk Vernaeve told *P&H*.

To reduce the overheads that using a private security company would incur, Ghent has, since the introduction of the ISPS Code, been trying to introduce a system based on the electronic identity (EID) card that every Belgian citizen has to carry.

duplication of effort and simplify the entry process."

Although no malicious attempts to enter the port have been identified, RHIDES has revealed that some drivers had tried to gain access using other drivers' cards. Offenders are re-educated in how to use the system and repeated misuse results in a two-week access ban.

Some users point to problems with the biometric hand scanner, however. Pete Butler, East Anglia area manager for the Road Haulage Association, was on the working party that helped develop RHIDES: "The biometrics system could be improved. It identifies drivers by taking a measurement of the shape of the hand, because everyone's hand is different, but as you get older your hand changes shape, which can lead to false readings. If the readers get dirty you can also get mis-readings, but that doesn't happen if the scanners are kept clean." In response, Wilson said the machine has a built-in 10% tolerance for changes in hand shape, it updates stored hand image information every time it is used and security guards regularly clean dirt from the screens.

Although RHIDES was developed for Felixstowe, the system could be rolled out at container ports across the UK, said Wilson, who is urging ports interested in the system to get in contact: "The nature of the container industry is that the same drivers tend to visit many different ports, so a system that allows drivers to

use a single ID card to access each port could function well. This theory was borne out when we extended the system to Thamesport and found that most of the drivers visiting there were already on our system."

An integrated UK-wide access system would benefit drivers too, believes Gareth Huws, general manager at Roadway Container Logistics, whose 100-strong fleet services Felixstowe: "The last thing you want is drivers carrying one card for each port, and having to make sure drivers register at each separate port, especially if they only visit them sporadically. The key to rolling out nationwide is ensuring that there is one common security database and one access card, which RHIDES could provide." PH

RHIDES could be developed into a single pass allowing entry to all UK ports





Is a Europe-wide or even nationwide access card for ports likely to be a reality in the future? **Stephen Cousins** looks to Felixstowe in the UK and **Jem Newton** considers Belgium's option



Above: The Alphapass used by Antwerp Right: Drivers at Ghent use a cheaper alternative Vernaeve pointed out that 80% of all those who enter the port already possess an EID card. Accepting it as an access pass would keep down costs associated with the lengthy process of identifying and authorising each individual who needs access to a restricted area of the port. For the 20% who lack a Belgian identity card, a visitor's card has been designed with the same integrated electronic chip and data structure as the EID.

"The problem is that the national maritime security authority allows the terminals the choice of what system they adopt and do not oblige ports to use the EID card," he explained.

Vernaeve continued: "Here in the harbor office we use the EID card as the access control system, but otherwise each terminal has its personal system. So our port officials and surveyors need a lot of cards to get round the different terminals."

He said he had raised the issue at the stakeholder

advisory group for maritime security at Belgian ports, but the EID scheme had met with considerable resistance, particularly from Antwerp.

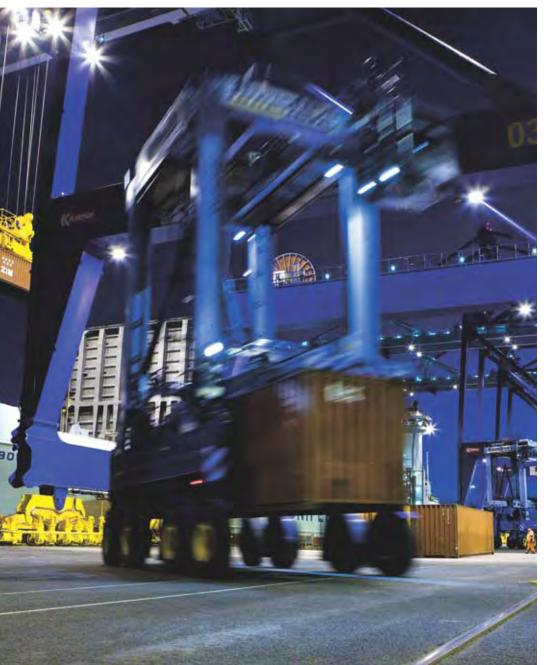
Captain Vernaeve told *P&H* that he and the Ghent port authority would welcome the introduction by the EU of a Europe-wide port access card. "It would certainly simplify things here in Belgium," he said. **PH**

















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COVER STORY PORT SECURITY



A secure overview

Port of Cork is optimistic that its extensive port environment has a secure future

he port, located in the southwest of Ireland, realised that it had to update its disparate collection of security equipment six years ago, not only to comply with the ISPS Code, but also to find a workable security solution suitable for its 15km² site. Additionally, it wanted to be an approved 'Gateway' port so that it could offer a direct route to the USA.

Security provider ADT won the contract after a tendering process, "as it pulled everything together", *P&H* was told by Captain Pat Murphy, the port facilities security officer. It was able to provide a central monitoring system covering the port's five terminals, which are situated in the world's second-largest natural harbor.

The system consists of access control points and more than 100 CCTV cameras across the site, all of which are linked in a network. The small security crew can monitor the cameras from two locations within the port, while management personnel can remotely monitor activity across the port on their laptop computers, wherever they are.

As well as providing obvious security benefits, the system provides an overview of the level of activity across the various parts of the port. "The drive from one end of the port to the other is nearly 30 minutes," pointed out Donal Colfer, account manager for the Integrated Solutions Group at ADT. "Now personnel can look at the five terminals, situated on different

sides of the river estuary, and see where the help is needed. Previously, it would have been someone driving around in a car."

The system is evolving all the time and has proved to be easy to upgrade as up-to-date technology becomes available. The original system ran on video and data transmissions, Colfer told *P&H*. Last year, the radio links were upgraded to secure ethernet links, creating a local area network. "This makes the system much more difficult to interfere with from passing ships," he said.

The port is now using CEM Etherprox intelligent card readers, which are fully integrated into the same system as the CCTV surveillance cameras. To gain access to different parts of the port, a port user is required to carry an access card that must be held up to readers at various points. The cards provide different levels of access depending on the identity of the user and the terminals to which they require access, explained Murphy.

The deepwater terminal and the ferry terminal both have card readers installed on the vehicle control barriers. Automatic number plate recognition is also in place in these areas.

The photographic 'proximity' cards hold the person's name, company and details of the access they require, and are administered by the port authority. It also issues photographic identification to stevedores and dockers, said Murphy, because these are quicker to arrange.

Murphy is looking to upgrade parts of the port using "fantastic advances" such as mega-pixel technology and thermal imaging. "I'm looking forward to seeing 21st-century technology in the port," he enthused to *P&H*, adding that ADT has been proactive in keeping the port up to date with all the possibilities available to it. **PH**

No plain sailing for US cruising

Waning orders plus rising emission curbs add up to limited growth for US cruise ports, reports *P&H*'s Americas editor *Greg Miller*

he theme for US cruise ports can no longer be 'build it and they will come'. Future passenger throughput will not necessarily be driven by terminal infrastructure, but by economic, industry and environmental trends.

The positive message for 2010 from Carnival Corporation and Royal Caribbean – the two players that provide virtually all US cruise-port business – is that recessionary pain is definitely reducing. Both US passenger pricing and booking volumes are up this year, admittedly against very depressed 2009 levels.

The negative news concerns the cruise orderbook and US emissions regulations.

Deliveries of newbuild cruise ships remain healthy this year, thanks to the time-lag between contract signing and launch. Those cruise vessels coming to market now were ordered before the recession. Orders came to a halt

in 2008 and resumed only recently and at a much slower pace for 2012–2014 deliveries. US cruise ports should therefore plan for a capacity-induced growth slowdown starting in 2012, which could very well persist for several years thereafter.

Carnival has confirmed a downshift to low- to mid-single-digit annual growth over the next five years. As this estimate includes newbuilds for its European brands, US growth could be even lower. Royal Caribbean has maintained its bearish stance on new orders and it too is focusing on international expansion, which, again, may limit growth in the USA. Norwegian Cruise Lines – another major operator in the US market – remains heavily indebted, so may not be in a position to fill the impending gap.

The second challenge for US cruise ports is the environment – more specifically, the impending low-

Alongside at Canaveral, where numbers of passengers are up on 2009's figures



Top US cruise ports 2008–2009

Port	2008	2009	Change
Miami	2,099	2,032	-3.2%
Port Everglades	1,187	1,277	+7.6%
Port Canaveral	1,226	1,189	-3.0%
San Juan	521	507	-2.7%
Seattle	435	430	-1.1%
Long Beach	365	415	+13.7%
San Diego	416	413	-0.7%
Los Angeles	607	412	-32.1%
New York	477	403	-15.5%
Tampa	393	401	+2.0%
Galveston	403	386	-4.2%
New Orleans	185	243	+31.4%
TOP 12 TOTAL	8,314	8,108	-2.5%

Source: US Maritime Administration (MARAD). These figures differ from official port cruise statistics because ports calculate 'revenue passengers', which double-count homeported passengers, for embarkation and disembarkation

sulphur fuel regime imposed by the Environmental Protection Agency (EPA). The EPA's mandate for a vast emission control area (ECA), extending 200nm from shore, was finalised in December 2009 and approved by the IMO in April. It will require the use of 1% sulphur fuel by mid-2012 and 0.1% sulphur fuel by 2015.

Cruise sources are sceptical that US bunker suppliers will have sufficient stocks of low-sulphur fuel available, given the environmental constraints on refiners, which will need to alter facilities to produce new distillates. The EPA rule does, however, allow for use of scrubber technology as an alternative to low-sulphur fuel.

The extent to which the EPA rule affects US cruise-port volumes and routes will hinge on the success of future scrubber technology, as well as cost and availability of low-sulphur distillates. Cruise sources privately concede that if scrubber technology does not evolve as hoped, the EPA sulphur rules will definitely affect US itineraries.

For example, Carnival estimated in its most recent annual filing that the strictest terms of the US ECA could cost the company up to \$200M a year. Rather than absorbing annual costs of this magnitude, Carnival is more likely to alter its itineraries so as to obtain the greatest profit margin.

The US industry fears that, to minimise the need to buy expensive distillates, cruise operators will reroute

future itineraries and cut voyage periods within the US ECA and also the expected Canada ECA. This would imply a pullback from New England/Canada, Alaska, Hawaii, Bermuda, and Caribbean cruises homeported in New York that sail down the US east coast – all of which require long sailing periods within the US/ Canada ECA.

In line to gain from the new rule could be Floridahomeported and Gulf Coast-homeported, Caribbeanbound routes – assuming the Caribbean does not follow suit with its own ECA.

In the near term, other regional trends and issues have affected US cruise-port volumes.

According to data compiled by the US Maritime Administration, passenger counts at the top 12 US cruise ports – accounting for the majority of total US volume – fell by 2.5% in 2009. With the exception of Port Everglades, Long Beach, Tampa and New Orleans, these ports suffered declines amid last year's recession, with Los Angeles and New York logging the steepest falls.

State-specific issues may be the culprit in some cases. Mortgage defaults had risen in states like California and Florida, which probably curbed local passenger business at some cruise ports. In the same way that property markets slump and then recover, renewed consumer strength could bolster the Mexican Riviera market out of California and the Caribbean sector out of Florida

In the primary northwest US cruise port of Seattle, the challenge has been Alaska's oppressive \$47 per passenger head tax, which spurred several lines to pull 2009–2011 capacity from that circuit.

Alaska's government has just agreed to reduce that tax to \$34.50 per passenger, prompting cruise lines to drop their lawsuit against the state and pledge future capacity renewal. But given the lead times needed for itinerary-planning, Alaska volumes are unlikely to rebound before mid-2012, indicating that Seattle homeport volumes will remain under pressure until then. PH

Sources are sceptical that US bunker supplies will have sufficient stocks of low-sulphur fuel



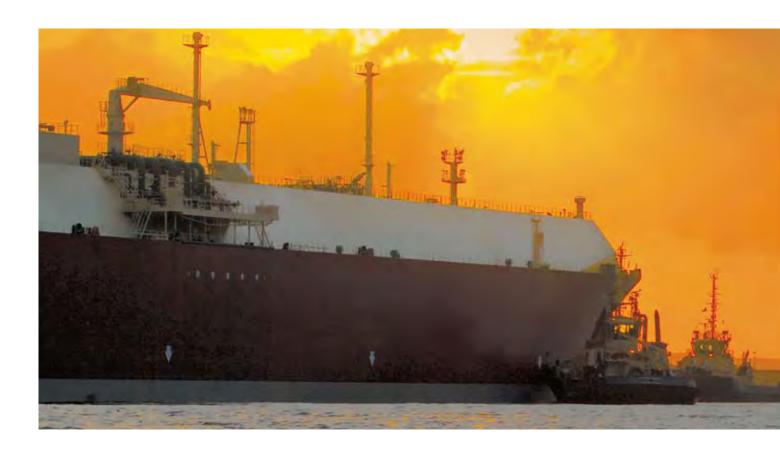
Both the USA and Canada intend to introduce an emission control area (ECA) 200nm off their coastlines, enabling them to manage emissions levels. It is hoped that nitrogen oxides (NOx) will reduce by 290,000 tonnes a year, sulphur oxides (SOx) by 835,000 tonnes a year, and particulate matter (PM) by 82,000 tonnes a year. "These reductions would be 23%, 74%, and 86% below current levels,

respectively," the US Environmental Protection Agency stated.

To meet these reduced emissions levels, vessels operating in these areas will need to use a fuel with a sulphur content not exceeding 10,000ppm, reducing to 1,000ppm by 2015.

In the US, the ECA is part of a wider strategy that also includes EPA's Clean Air Act.





Offering easier access

Ports can help ships' crews by providing unambiguous and up-to-date information, *P&H* learns

More up-to-date information about the port environment should be made available to crews

Pringing in and berthing a large ship at a busy port presents numerous challenges for both master and pilot. Those challenges are growing in direct proportion to the increase in size of ships, with under-keel clearances and turning circles in ports becoming ever tighter. Today, only 10% of the world's biggest ports are able to accommodate the larger vessels.

GAC Training & Service Solutions is a collaborative venture of the Gulf Agency Company and the National Maritime College of Ireland. Its director, Christer Sjödoff, is clear about what is at stake when an expensive vessel is at the ship-to-shore interface. "An exportation LNG terminal that costs \$3Bn to build, with a ship alongside valued at \$250M, discharging a cargo of LNG valued at, say, \$20M, represents a significant asset and, by the same token, significant safety, security, environmental and financial risk."

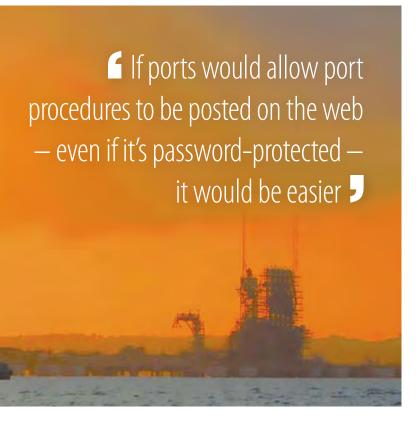
Howard Candelet, an expert on LNG shipping and senior lecturer with GAC T&SS, believes that there are several ways in which ports can assist masters and pilots to bring their ships into port. In particular, lessons can be learned from the specialist terminals that handle dangerous cargoes, because they have

usually been designed to "minimise risk to a point where it is acceptable".

Whereas other ports may not offer such tight and efficient operations, he explained that all ports and terminals can make changes that could prove beneficial all round: "If you put the anchorage areas to one side so that the vessel can steam out of the port and keep going straight – just doing something like that can improve safety."

"A lot of ports have now looked carefully at where the anchorage locations are to ensure they are not directly in the line of sight of the direction a vessel would take. Why have it in the route the vessel would normally take to go to open sea? Why not put it to one side?" he questioned.

Information provided by ports can be ambiguous, said Candelet. Masters need to know the designated areas to 'park up' or drop anchor while waiting to come into port, he said, adding that it should be a safe area outside a shipping lane. "Access to clear, upto-date information about a port is the biggest issue," he told *P&H*. "If ports would allow port procedures to be posted on the web – even if it's password-protected – it would be easier. Ports need to know







Photos: Joachim Affelo

about technical developments so that they can pass this information on to masters."

This information should eventually be incorporated into official navigation charts – both electronic and paper – but he acknowledged that this is a slow process. "Sometimes it takes a long time for a chart to be updated. If it is decided to relocate the anchorage location it might take three or four years to get that information on to the [official UKHO-supplied] Admiralty charts," Candelet said. An up-to-date website provided by the port could help masters in this interim period.

A great many new gas terminals are planned around the world and ships are often diverted to unfamiliar terminals as part of the spot trade. This makes it vital that port-related chart data is updated as quickly as possible. Peter Jones, operations standards manager at the United Kingdom Hydrographic Office (UKHO), acknowledged that new port data sometimes takes a while to appear on charts – especially in "derived areas" in which other countries' charts are used, or in locations where data management is less advanced.

"The further afield it gets, the more problematic it becomes. With our home waters we liaise with our own port authorities and the like to acquire data and they keep us more fully informed about developments and changes. We have got to acquire the data in the first place and that also assumes that we know about it."

The UKHO issues notices to mariners, including preliminary/temporary notices and chart updating alerts, to inform them of alterations. Jones encouraged ports and other players to send the UKHO information about changes in port arrangements.

Hydrographers say it is also a question of prioritising significant new data – those aspects that have a navigational impact, such as jetties and breakwaters. Anchorage sites pose a particularly tricky problem, as they may be temporarily relocated. For the sake of safety, some ports have repositioned anchorages that were directly in line with port exit channels.

Candelet is also keen for ports to share other useful information with visiting ships' crews by, for example, posting on to their websites the special procedures required when entering the port. This approach could go one step further, he said, by developing on the website a database giving hospital information, directions to the nearest airport, information on dangerous areas around the port that seafarers should avoid, and even contact numbers for local taxis. "This would help seafarers plan their shore time in advance," he concluded. PH

Sharing data, for safety's sake

The Oil Companies International Marine Forum (OCIMF) has agreed with the Society of International Gas Tanker & Terminal Operators (SIGTTO) secretariat to allow data from OCIMF's vessel particulars questionnaires (VPQs) to be accessed online through SIGTTO.

The development will give SIGTTO members greater information on vessels, so they are better placed to undertake compatibility assessments of vessels about to visit certain ports. One expert indicated that the move should boost safety, because it is less likely that a ship will end up at a berth for which it is unsuited.

The move is one of several initiatives introduced recently by the tanker industry, including Intertanko's opening up of its Terminal Vetting Database, which was announced in February.

Cleaner ships ahead

The northwest European ports that agreed to fund and develop the Environmental Ship Index (ESI) have made good progress with the technical specifications, making the first presentation of the web-based application at last month's biennial meeting in Savannah, Georgia.

"We expect to formally launch the application in September 2010. The Port of Rotterdam plans to introduce ESI in 2011, as do Amsterdam, Antwerp, Bremen and Hamburg – it's important that some ports make a start and implement it in a very robust way so that other ports can follow their lead." Tiedo Vellinga, who is leading the ESI project team, told P&H.

Vellinga works for the Port of Rotterdam Authority and is director of environmental monitoring for the Maasvlakte 2 project.

The index measures a ship's emissions and gives a realistic idea of its environmental performance. Using the index as a yardstick, participating ports plan to reward ships that improve upon current IMO and European Union emission standards (for full details of the index specifications, see Ports & Harbors, January 2009, p36).

"The ESI standard will always be above EU and IMO compliance levels for emissions - that's the basic principle of the index; as soon as even stricter EU and IMO rules come into force the ESI baseline will be raised," said Vellinga. "Our aim is to start with a few ports in a kind of pilot year, with others joining later; we want to first make sure the web-based application works so that it can be used easily by other ports."

Although ESI is entirely voluntary, it is part of IAPH's World Ports Climate Initiative. Ports hope that by offering incentives the global shipping industry will be motivated to take seriously its role in reducing environmental pollution in and around ports.

"Other ports need to decide what kind of incentives they will



offer to complying ships and how to use the index, because the ESI group hasn't prescribed how the application should be used. We give guidance, but each port should be able to use it in its own way," Vellinga explained.

The voluntary, 'non-cartel' nature of ESI is emphasised by one of the other port authorities involved in the development of the programme. Bremenports environmental director Uwe von Bargen told P&H: "How the ESI is used remains the decision of each port individually. In fact, EU competition law would preclude European ports being permitted to jointly fix an agreed incentive to offer owners and operators."

adviser Toon Tessier said simulations had been developed that were useful for giving practical demonstrations of the index's uses ahead of the introduction of the webbased application. "One

of the benefits of simulations is that we can show ports and ship operators how the index scheme will work in practice and what the impact of the discount scheme will be," he told P&H.

Both von Bargen and Tessier emphasised that the initial response they had received from both international carriers and other ports in Germany and Belgium had generally been supportive. The operators already introducing cleaner vessels are naturally the most enthusiastic

and are keen that as many major ports as possible should adopt ESI. "It's a matter of thinking longterm,"Tessier pointed out; "the more ports that introduce ESI, the more money carriers with highscoring ships will save."

WPC

"We have also had enquiries from various ports interested in joining the initiative, but have had to put the brakes on that interest until the webtool is operative," added von Bargen.

The so-called 'Northern Range' ports have borne the cost of developing the web-based application, but von Bargen said that one issue on the agenda for the future is how the ESI project will be financed long-term. "That is something that will be discussed at IAPH board level," he said.

Both IAPH members and nonmembers are welcome to get involved in the ESI project. More info: www.wpci.nl



United front against piracy

The ports and shipping industries are pressing for more effective action against Somali pirates.

On behalf of the ports' community, IAPH passed a resolution on the issue at its Midterm Board Meeting in Savannah in May (see SG's comment on page 3) declaring its support for seafarers and stakeholders associated with shipping.

In April the United Nations Security Council issued a resolution that acknowledged those countries that had been proactive in prosecuting suspected pirates and those that changed their international law to criminalise the activity. It drew attention to certain states that "lack provisions" to bring pirates to justice.

It also considered the root causes of the problem, stating that "peace and stability within Somalia, the strengthening of state institutions, economic and social development and respect for human rights and the rule of law are necessary to create the conditions for a durable eradication of piracy and armed robbery at sea off the coast of Somalia". It went on to emphasise that the key to Somalia's long-term security is an effective national security force.

The shipping community has been active in stimulating discussion and insight into the issue, too. Thirteen organisations – including Bimco, International Chamber of Shipping (ICS), International Shipping Federation (ISF), International Transport Workers' Federation (ITF),



Securing the crew of a drug-smuggling vessel in the Gulf of Aden

Intertanko, Intercargo and the International Group of P&I Clubs – are jointly organising an online petition to garner public support for the campaign. The main aim is to persuade countries to commit more resources to combating piracy. It is hoped to deliver at least half a million signatures to governments by World Maritime Day on 23 September.

ITF assistant secretary John Bainbridge said that there were several ways in which additional resources could be accessed, and the petition would help involve both public and seafarers. "A lot of littoral states will eventually have to pick up the banner – like in the Malacca Strait – and take responsibility for their waters."

He suggested that anti-piracy forces should consider using alternative smaller vessels for interdiction operations. "I don't think we need to have large cruisers and destroyers in there: we have to have a rethink about what we need for policing, and who's responsible."

Earlier this year Bimco characterised "the plague of piracy" in the Gulf of Aden and Somali Basin as the most serious challenge facing commercial shipping, notwithstanding the efforts of naval forces. The Denmark-based organisation supported "a government-based solution to the security situation ashore in Somalia and an effective legal regime to prosecute pirates" and wants to see an effective coast guard set up in the area.

US president Barack Obama issued Executive Order 13536 in April, which prohibits transactions by US persons with "specially designated nationals", including Somali pirates. The order states that piracy off the coast of Somalia "constitute[s] an

unusual and extraordinary threat to the national security and foreign policy of the United States, and I hereby declare a national emergency to deal with that threat".

There has been disquiet about this strategy, which is designed to prevent payment of ransoms. The International Chamber of Shipping is concerned that any US shipowner, insurer, charterer or shipper interest that is involved in paying a ransom, even indirectly, may be caught by the order's prohibitions, rendering them liable to fines and/or imprisonment of up to 20 years.

ICS also pointed to the uncertainty over the type of checks or due diligence that shipowners should carry out to ensure they did not violate the legislation. Both shipowners and insurers have been anxiously seeking clarification from the US Department of the Treasury. The department's Office of Foreign Assets Control is developing a more comprehensive set of regulations, which may, according to the Federal Register, include "additional interpretive and definitional guidance and additional general licences and statements of licensing policy".

In 2009, 55% of worldwide pirate attacks occurred off Somalia or in the Somali Basin. The naval presence has reduced attacks in the Gulf of Aden, but problems persist in the Somali Basin, with pirates extending their range to within 200nm of India's Lakshadweep Islands and within 30nm of the Tanzanian coast.

Shippers promote stewardship of the ocean

The newly formed World Ocean Council (WOC) received support from a number of shipping and chartering companies at its inaugural meeting in Belfast in June.

The WOC, which bills itself as a "cross-sectoral leadership alliance on ocean stewardship", has received the endorsement of ExxonMobil, Rio Tinto, Torm, NAMEPA, RightShip and the International Chamber of Shipping, among others.

WOC covers a broad range of marine industries, including shipping, energy and fishing, and seeks to bring together environmental scientists and business to generate policy initiatives. Rio Tinto marine general manager Alistair Fischbacher said: "The World Ocean Council is an innovative, global cross-sectoral forum and an opportunity to share and exchange information."

Torm USA managing director Jesper Bo Hansen said the tanker owner saw the WOC as "an important step in the right direction to unite and build on a joint platform that means we can keep using the oceans in a protective and sustainable way".

The meeting addressed environmental issues in shipping, ports and dredging, among other topics.

HNS made practical at MSC

The practical problems of implementing a 14-year-old hazardous materials convention have been addressed through a protocol adopted in April by a diplomatic conference at IMO's headquarters in London.

The International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea was adopted in 1996, but the convention still has only 14 ratifications. International Maritime Organization secretary general Efthimios Mitropoulos is urging governments to bring the protocol into force as soon as possible.

The new protocol states that in the case of damage being caused by bulk hazardous or noxious substances (HNS), compensation should first be sought from the shipowner, up to a maximum limit of about \$150M. Where damage has been caused by packaged HNS, or by both bulk HNS and packaged HNS, the maximum liability for the shipowner is \$172.5M. This is the first tier in the compensation regime.

Once the first tier limit is reached, compensation would be paid from the second tier, the HNS Fund, up to a maximum of \$375M (including compensation paid under the first tier). The fund will be administered by an assembly, consisting of all states that are party to the convention and protocol, and a dedicated secretariat. The assembly will normally meet once a year.

The protocol will enter into force 18 months after the date on which certain conditions have been fulfilled.

The first of those conditions is that a minimum of 12 states (including four states each having at least 2M units of gross tonnage) have expressed their consent to be bound by the convention.

The second condition requires that the states that are liable to contribute to the fund have received during the preceding year a total quantity of at least 40M tonnes of cargo contributing to the qeneral account.

The HNS Convention excludes pollution damage, but does cover death, personal injury and fire, among others.



Verification of goal-based standards for oil tankers and bulk carriers follow a five-tier system

IMO sets standards for ships

Goal-based standards (GBS) for oil tankers and bulk carriers were finally adopted by IMO's Maritime Safety Committee (MSC) at its 87th session on 20 May. In a move that was described by IMO as a "historic change", it represents the first move by the organisation to influence and set standards for ship construction.

IMO secretary-general Efthimios Mitropoulos described the adoption of the standards as "a significant and important breakthrough for the organisation, not only in terms of how future regulations will be developed, but also with respect to the role that IMO will play in verifying compliance, in this particular case, with SOLAS requirements."

Governments and international organisations have for the past 10 years felt that IMO should have more influence over the structural standards to which new ships are built. The move is intended to ensure that ships are designed and constructed for a specified design life and that throughout that life they remain safe both to the environment and to seafarers who sail on them.

Newly constructed oil tankers and bulk carriers will have to comply with structural standards agreed by the committee.

MSC 87 adopted guidelines that

give IMO an opportunity to verify compliance with GBS-related SOLAS requirements.

These guidelines set out the procedures that must be followed to verify that the design and construction rules – of an administration or its recognised body – conform to the adopted GBS. Verification takes place in two stages: first the procedures must be self-assessed by the administration; then those procedures are submitted to the IMO to be audited by an IMO-appointed expert.

The International Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers, Regulation II-1/3-10 (to give them their official title) will apply to all oil tankers and bulk carriers of 150m length and above and will enter into force on 1 January 2012. The same date will see the entry into force of amendments to Chapter II-1 of the International Convention for the Safety of Life at Sea (SOLAS), making their application mandatory.

The MSC also adopted further guidelines requiring the information to be included in a ship construction file.

The goal-based standards adopted in May relate to a five-tier system (see box below) originally proposed by Greece, the Bahamas and the International Association of Classification Societies (IACS). The adopted standards reflect Tiers I to III.

GBS: the five tiers

Tier I: Goals – high-level objectives that must be met.

Tier II: Functional requirements – criteria to be satisfied to conform to the goals.

Tier III: Verification of conformity — procedures for verifying that the rules and regulations for ship design and construction conform to the goals and functional requirements.

Tier IV: Rules and regulations for ship design and construction — detailed requirements developed by IMO, national administrations and recognised bodies, and applied by these same bodies, to the design and construction of a ship in order to conform to the goals and functional requirements.

Tier V: Industry practices and standards — industry standards, codes of practice and safety and quality systems for shipbuilding, ship operation, maintenance, training, manning, which may be incorporated into, or referenced in, the rules and regulations for the design and construction of a ship.



Insurance provider TT Club, together with International Cargo Handling Co-ordination
Association International (ICHCA), has issued two pocket-cards giving advice on safe slinging of cargo on and off vessels.

Described as "a quick and easy reference" for all those that use slings, the guidelines focus on cargoes that require individual lifting, as opposed to containers and ro-ro cargo. "This is a feature of cargo handling that is often ignored from the safety point of view, yet there are some simple guidelines that can ensure safe cargo handling using slings," said Peregrine Storrs-Fox, TT Club's risk management director.

The pocket-cards have been developed from a briefing pamphlet on safe slinging that was recently published by ICHCA's International Safety Panel. It explains that all slings, whichever material they are made from, are marked with a safe working load (SWL). Slings can be used in a number of ways

and to determine the SWL for each option, the pamphlet provides a 'mode factor' for the straight 'pull-safe' working load.

The ICHCA guidance emphasises the importance of the sling not being allowed to damage the load nor the load the sling, and of selecting the correct type of sling for the job. Users are shown how to look for sling defects and given the criteria for determining whether a damaged sling should be discarded.

"TT Club is committed to the researching of best-practice in all forms of cargo handling," Ian Lush, marketing director at the club, told *P&H*. It "has been cooperating with the Safety Panel of ICHCA in what it believes to be a most effective way of achieving these safety and risk management goals," he concluded

The guide is available in print form and as a PDF from the TT Club website, www.ttclub.com.

Pull safe... know your safe sling working load



Click for EU customs procedures

The first phase of a web portal to help businesses understand and follow the customs procedures for importing goods into and exporting goods from the European Union was launched in April by the European Commission (EC).

It is intended to serve as a single point of access for

practical information and even includes animated scenarios that explain each step of the import, export and transit procedures. There is an outline of the legal framework for such procedures, and the portal includes information on policy, databases and assistance services drawn from the EC and the customs

websites of member states.

Known as the European Customs Information Portal (ECIP), it focuses on the application of the Safety and Security Amendment to the Customs Code, which entered into force on 1 July 2009.

To access the portal go to: http://ec.europa.eu/ecip.

Panama Canal tolls held

The Panama Canal Authority (ACP) has announced that it will not change its tolls this year, although adjustments are scheduled for January 2011.

"The ACP thoroughly analysed various alternatives and held conversations with the maritime industry for several months to ensure that the suggested price structure safeguards the competitiveness of the waterway and facilitates the canal's goal of providing a valuable service to world commerce," said ACP administrator and chief executive officer Alberto Alemán Zubieta.

According to the authority, the proposed alteration next year "modifies the pricing structure for all canal segments: container, dry bulk, liquid bulk, vehicle carriers, reefers, passenger, general cargo and others".

The ACP proposes to change the way tolls are calculated for the container sector, with a slight price adjustment to the capacity charge and an additional charge that would apply to the number of loaded containers aboard the vessel at the time of transit.

EC digs in on sulphur limits

MARITIME UPDATE

The European Commission will not support efforts to persuade the IMO to drop plans for stringent new sulphur oxide emission rules in 2015.

An alliance of more than 50 European shipping and industrial bodies recently sent an open letter to the EC alleging that the IMO rules would put northern Europe at a competitive disadvantage with other EU regions.

The rules, created by the IMO in 2008, limit the sulphur content in marine fuels to 0.1% in northern Europe's emission control areas, covering the Baltic Sea, the North Sea and the English Channel.

Transport commissioner Siim Kallas said that the EC"has a legal obligation to implement the decisions taken by the IMO" by transposing those limits into EU law. He said IMO sulphur limits had been approved by all EU members.



Normal ain't coming back

Four port forum sessions and a line-up of insightful keynote speakers sparked the interest of over 100 delegates at IAPH's Mid-term Board Meeting quite as much as the hot Savannah sun

President Gichiri Ndua was first to take the floor at the meeting hosted by Georgia Ports Authority. He questioned the point at which a port should accept that it has enough capacity and admit that "this good is good enough". Asking delegates, "Where is the end?" he challenged them: "Would you increase throughput indefinitely?" He acknowledged that throughput is down at the moment, because of various outside forces.

Public-sector money for infrastructure and development is driving growth, he continued, but he balanced this optimistic perspective with a reminder that unemployment is still too high. "[Ports are] expanding their throughput," said Ndua, "without calling in more labour."

After a hearty Southern-style welcome from City of Savannah mayor Otis Johnson – who

informed delegates that Savannah is a "designated urban forest" – GPA's chairman of the board Stephen Green drew attention to the Port of Savannah's "unique position of strength in our industry". He told delegates that, as the economy turns itself around, the port will be ready to serve its clients. "The shipping industry must meet the needs of tomorrow's demands," he said.

Keynote speaker Craig Lesser, a managing partner at Pendleton Consulting Group, began his presentation with a quotation from the April issue of *The Economist* magazine: "The world is turned upside down." Rich countries, he said, now have to compete with emerging countries in business innovation. Change has become a constant in the way we work and we need to see it and plan for it. "Normal ain't coming back," he proclaimed.

He too acknowledged
Savannah's healthy container traffic figures, adding that Georgia is now a major force in international commerce. He said that there are 60M people in the southeast of the USA and it's the fastest-growing region in the country. Savannah has a "God-given location" for delivering to this area: "We have become the corner store," he added. "The world is upside down, but Savannah and Georgia are right side up," he concluded.

The first of the port forum sessions, chaired by *Journal of Commerce*'s senior editor Peter Leach, focused on transport trends and economic projections. Moffat & Nichol's chief economist, Walter Kemmsies, believes that Asian and Latin American countries will continue to overtake developed countries, unless the USA is able to stabilise the situation. As he put it: "If we're not going to import less,

we're going to have to export more."The government has increased its debt to stimulate this, he added.

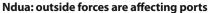
Offering a logistics perspective, Jack Gross, VP and general manager of international supply chain at Schneider Logistics, candidly told delegates: "No-one here, or anyone else I could talk to, could predict what [international trade is] going to be like in three years."

Shippers today are interested in smaller but more accurate shipments, he suggested, and the closer a shipper is to the ultimate user the better.

Which ports do shippers use and why? That was the question John Kaiser, VP and general manager of intermodal at US rail company Union Pacific, sought to answer. He believes the choice comes down to the option that can provide the lowest delivery cost. Considering US ports, he maintained that the west coast's infrastructure "is not in place" and the east coast requires investment too.

US rail providers were well







IAPH members consider current challenges



Keynote speaker, Craig Lesser

represented at the meeting, with Norfolk Southern's VP of intermodal and automotives, Mike McClellan, commenting that, although trends are improving, we have a long way to go before freight returns to "normal" levels.

Maritime economist Bill Ralph, from R.K. Johns and Associates, kick-started the session on future trends for US exports and imports. West coast ports may only be running at 80–85% capacity in 2020, leaving "port competition tense", he predicted.

Delegates were then presented with a shipper's view of the situation. Terry Bunch, director of logistics and customer service at wood products company Rayonier relayed the frustrations of having to book shipments far in advance because shipping lines' capacity was so limited. "We used to book in 30 days in advance, but now we need to book 45 days," he noted.

Mike White, president of Maersk North America, agreed that this has been a challenge since shipping lines rationalised their tonnage. He also highlighted the challenge of "round trip economics". Import countries are not necessarily the same as export countries, he said, explaining that it is difficult to make "every port part of the transport network".

Protecting maritime trade was the focus of the third session, for which the tone was set by Commander David Murk, chief of the Cargo and Facilities Division at the US Coast Guard. He set out the USCG's layered approach to security, which combines:

- International activities, such as USCG's Container Security Initiative
- Offshore surveillance & tracking
- Coastal actions such as boarding vessels and interdiction
- Security and other activities in

internal waters and coastal ports.

Delegates were given a comprehensive overview of the future of the Suez Canal, including plans to increase the length of bypasses to reduce transit times in the canal and deepening the western bypasses to enable vessels with a draught of up to 52ft (16m) to use the canal. The speaker was Ahmed Mohamed Mahmoud El Manakhli, director of the canal authority's Planning & Research and Studies Department.

The last to take the rostrum in this port forum was Peter Mollema, director port planning and development, Port of Rotterdam, who looked at the "uniform approach", which has been adopted to secure maritime trade at the Dutch port. By 2013 the port plans to have in operation at all large container terminals: drive-through x-ray scans, nuclear detection gates, optical fibre connection to customs, and a container unpacking facility.

The final session – chaired by Geraldine Knatz, CEO of Port of Los Angeles (PoLA) – was focused on IAPH's World Ports Climate Initiative (WPCI) and greening the supply chain in general. Guido van Meel, senior adviser at Port of Antwerp, was first to speak, updating delegates on one of the initiative's projects: the Environmental Ship Index (ESI) (see page 36). In keeping with the premise of the ESI, Van Meel commented that, to reduce emissions in ports, "global mechanisms are the way forward".

Next to speak was IAPH's managing director, Fer van der Laar. He gave an update on another WPCI project – onshore power supply – and explained that a fully fledged standard for the technology would be in place by next year. IAPH has been involved with the creation of this standard, along with the International Electrotechnical Commission, ISO and Institute of Electrical and Electronics Engineers.

Lisa Wunder, an environmental specialist, also from PoLA, spoke about the development of the Carbon Calculator, which is being developed under the auspices of WPCI Carbon Footprint project. Carbon calculators are already available for railways and shippers,

she told delegates. As primary nodes in the supply chain, ports could use this tool to influence and collaborate with other operators to reduce their carbon footprints. PoLA has developed the calculator and is making it available to members and nonmembers alike.

When looking at ways to reduce carbon emissions, "Getting capital into the market place and getting the market moving," is a primary aim of the Carbon War Room. according to its director of operations, Peter Boyd. The nongovernmental organisation has been set up to engage environmental entrepreneurs, private companies and governments to work together to implement ways to reduce climate change. Boyd told delegates: "We don't believe there will be any changes unless people are making money," and the idea is that the two are brought together.

Casey Chroust concluded the day's presentations with a retailer perspective. The executive vice-president of retail operations at the Retail Industry Leaders Association cited several examples of the way that powerful retailers can influence how goods are shipped and ultimately help reduce both packaging and emissions in the supply chain.

They have succeeded through improved truck design, reduced vessel idling, greater efficiency, particularly through cutting the number of trips required, and by avoiding air transportation.

This outlook reminded ports that they are just one part of a much wider logistics network and that traditional super-powers are making way for emerging economies, environmental protection and customers. **PH**

Technical committees knuckle down

A resolution on piracy, new ways of distributing funds among technical committee projects and changes to the IAPH website were a few of the topics discussed and agreed on at the IAPH Mid-term Board Meeting from 7 to 9 June.

All of the committees meetings were well attended by a wide-reaching selection of members from accross the world.

The next World Ports Conference will be hosted next year by Port of Busan from 23 to 27 May 2011 and delegates in Savannah got a taste of what is in store.

Also, the next Mid-term Board Meeting will be held in May 2012 in Israel, where a

 well-filled programme is already being planned by the host, Israel Ports.
 For more information on the technical committee's activities go to: www.iaphworldports.org

Dates for your diary

Forthcoming courses and conferences

August

4–5 ICHCA Australia National Conference & Exhibition 2010 – Darwin, Australia www.ichcainternational.co.uk

September

- **6–17** Port Environment Policy & Technology
 Antwerp, Belgium

 www.portofantwerp.be/apec
- **7–10** SMM 2010 Hamburg, Germany www.hamburg-messe.de/smm/smm_en/start_main.php
- **8–12** WODCON XIX Beijing, China www.chida.org
- **12–14** PIANC 125th Anniversary Celebration in Asia

 Nagoya, Japan

 www.congre.co.jp/pianc125/english/index_eng.html
- 14-15 5th Annual Canada Maritime Conference– Montreal, Canadahttp://joc.com/events
- **14–15** Transport Security Expo and Conference London, UK www.transec.com
- 14-15 The 7th Annual Port & Maritime Security 2010Sydney, Australia www.portmaritimesecurity.com.au
- 16-17 5th Southern Asia Ports Logistics and Shipping 2010
 Mumbai, India
 www.transportevents.com
- **16–17** 6th World FIBC Congress 2010

 Amsterdam, Netherlands

 www.millenniumconferences.com

IAPH celebrates with PIANC



IAPH was well represented at PIANC's 125th Anniversary Congress in Liverpool, UK, in May, with both President Gichiri Ndua (pictured) and SG Susumu Naruse addressing delegates.

President Ndua's keynote speech highlighted the good working relationship between the two organisations and drew attention to their similarities: "PIANC minds the routeing and channels while IAPH aptly addresses the home, safe haven for these craft." He acknowledged the collaborative efforts of the IAPH and PIANC working groups.

He said to delegates: "We are convinced that PIANC works for IAPH and the same is true for IAPH.

Both organisations labour for ships." A tripartite approach towards matters burdening the industry is needed, Ndua added.

"I suggest that the two secretariats engage the Baltic & International Maritime Council [Bimco] with a view to establishing a working relationship with international shipping associations – Bimco concerns itself with navigation and ports as well."

Turning his attention to the much-debated topic of economic recovery, President Ndua commented that the optimism seen in 2009 was partly the result of a necessary injection of government funding. However, he commented: "One year down the line, the world economy is not out of the woods yet."

Ndua said that even though the public sector has been very active in providing resources for infrastructure development, the private sector has, on the whole, been more cautious. "It is still waiting for sustained stronger signals, which unfortunately it needs to be a party in generating." He concluded by addressing issues on the port-city interface and sustainable development.

Membership notes

Four new members are welcomed to IAPH

Regular members

Baku International Sea Trade Port

TransInvestService (TIS)

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Telephone: +38-0482-300-713
Fax: +38-0482-300-713
Email: info@tis.ua
Website: www.tis.ua
Representative: Andrey Stavnister,
general director

Associate members

Port Equipment Manufacturers Association

Address: Secretariat Office, c/o Next Level Information Ltd, 3 Pretoria Road, London E4 7HA, UK

 Telephone:
 +44-20-8279-9403

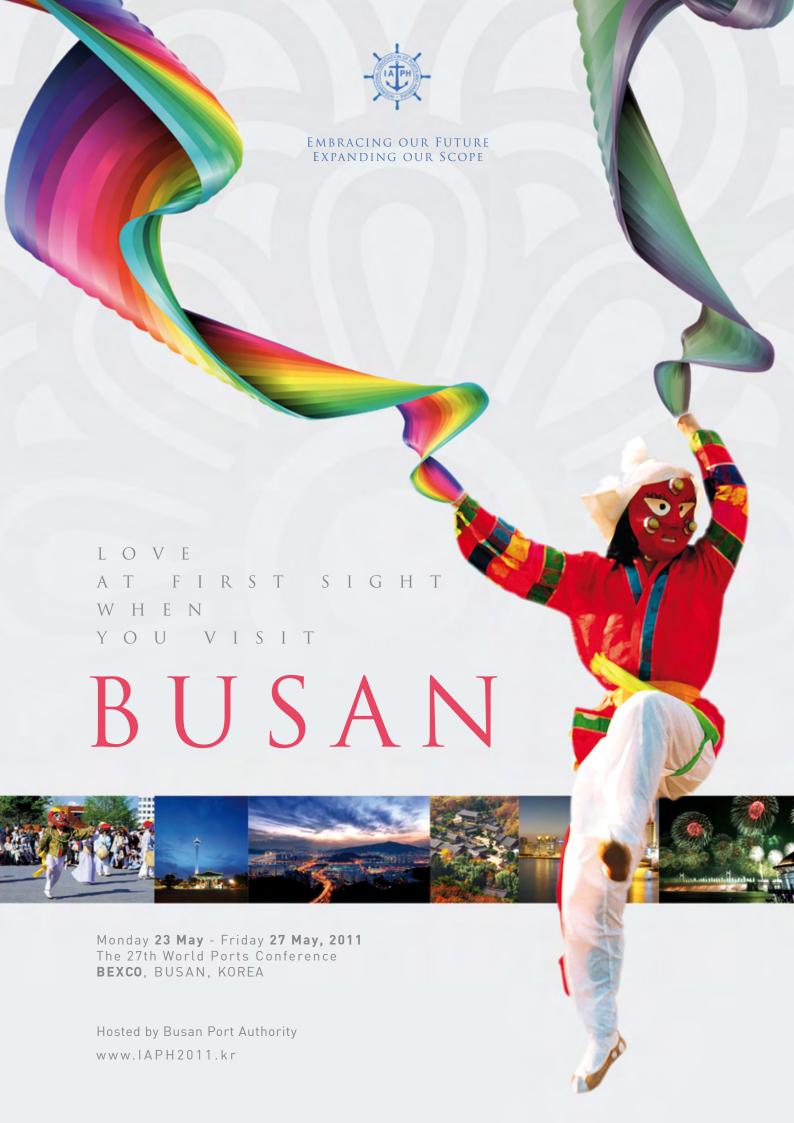
 Fax:
 +44-20-8279-9405

 Email:
 rachael.white@pema.org/ helen.coffey@pema.org

Website: www.pema.org
Representative: Ottonel Popesco, president
Nature of business activities: International trade
association for providers of port
equipment and technology

Informall BG

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Telephone: +380-48-728-5522
Fax: +380-48-728-5522
Email: hq@informall.biz
Website: www.informall.biz
Representative: Vassiliy Vesselovski, chairman
Nature of business activities: Consulting





Fhysical transportation now depends on data transfers

Freeing the flow of information

Port of Marseille Authority strategy and finance deputy director and chair of IAPH's Trade Facilitation and Port Community System Committee *Frédéric Dagnet* advocates easy movement of data

Ports have helped transport both people and goods since their inception. Today, providing this basic function is increasingly reliant on a third aspect: sharing information. Physical transportation now depends on data transfers in order to comply with current regulations, track goods, transfer ownership and provide value-added services. These 'intangible' transfers are becoming a key factor in a port's competitiveness.

It is for this reason that the Port of Marseille Authority has signed an agreement with customs to simplify its river and rail transportation procedures and make them more competitive. These activities are being supported by the development of the port's AP+ port information system – a paperless approach that saves our stakeholders time.

In mid-2009 the Marseille-Fos port community eliminated customs documents for transit between the Fos container terminal and the logistics zone, Distriport, to reduce the cost of passing through the port.

Remaining a competitive option to customers is a challenge for ports all over the world. It is therefore being addressed specifically by the IAPH's Trade Facilitation and Port Community System Committee (PSC). Its priority for 2010 involves

carrying out a benchmark study on PCS worldwide based on a comprehensive questionnaire administered by the committee across eight ports in Europe, one in the Middle East and seven in Asia.

This questionnaire will be sent to each port prior to an interview process.

Following this, each port's PCS will be assessed by a committee member over a two-day period:

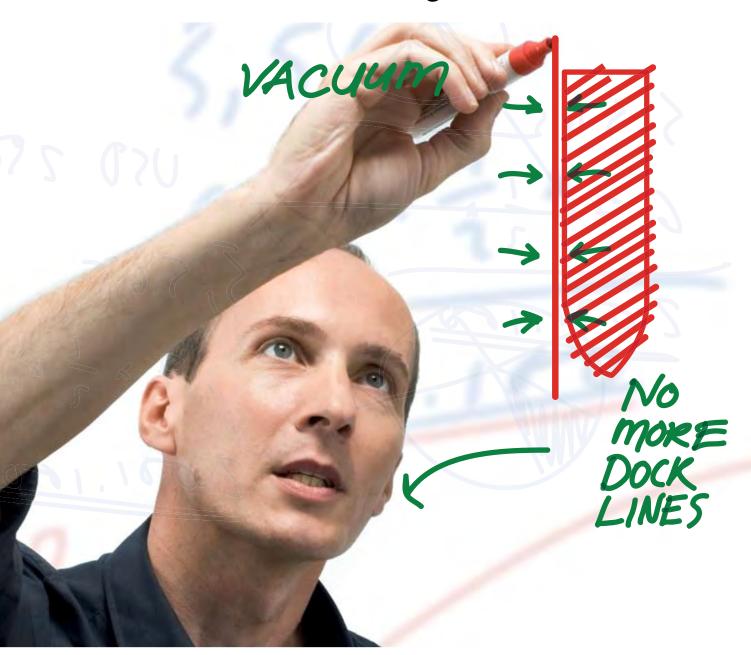
- Day one will include meetings with the PCS operator, port authority executives and a visit to the port itself, including a container terminal
- Day two will be a chance for the committee member to have meetings with customs, the trade community, including shipping agents and freight forwarders, and any other key stakeholders.

These activities will culminate in a final report including an executive overview, synthesis identifying key factors for success and difficulties, and a case study on each port.

The research findings will be presented in 2011 during the board meeting at the IAPH World Ports Conference in Busan. We have no doubt that they will offer many valuable lessons for us to share as we continue to improve the conditions for peaceful trade between people.



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Come and see us at RORO 2010, May 18 - 20 in Bremen, Germany and at TOC Europe 2010, June 8 - 10 in Valencia, Spain





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