September/October 2011 Vol 56 No 5

PORTS HARBORS

Official Journal of the International Association of Ports and Harbor



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A growing number of the world's ports and shipping lines are realising the financial and environmental benefits of shore-to-ship power supply.



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The shipping and ports industries are making progress in the challenge to reduce emissions **Photo: iStockphoto**

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PORTS ARBO

Official Journal of the International Association of Ports and Harbors

PORTS & HARBORS

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Regional strategies

Secretary General Naruse urges readers to get involved with IAPH at a regional level

Susumu Naruse Secretary General - The International Association of Ports and Harbors

> fter much debate, in July IMO's Marine Environment Protection Committee finally adopted mandatory energy efficiency measures (EEDI and SEEMP) for international shipping. As a non-governmental organisation of worldwide ports that created WPCI to combat global warming at ports three years ago, IAPH welcomes IMO's initiatives to reduce greenhouse gas emissions in international shipping. Those measures are expected to enter into force on 1 January 2013, so now it is time for WPCI to consider incorporating these measures into the Environmental Ship Index system that became operational in January.

After the news was announced, I visited Sri Lanka at the request of Sri Lanka Ports Authority (SLPA) for a press conference on the IAPH Asia/Oceania Region Meeting next March. To ensure the meeting receives maximum exposure, the press conference announced that the President of Sri Lanka would attend.

Sri Lanka is keen to meet the fast-growing demand in the region 🚽

Sri Lanka is keen to meet the fast-growing demand in the South Asia region and to develop ports as an engine of the national economy. SLPA has embarked on large-scale expansion of Port of Colombo and the greenfield development of Hambanthota Port (see P&H, March). Colombo's South Harbor **Development Project involves** three terminals - the first opening

in 2013 - each having three 18m-deep box berths, with a total capacity of 7.5M teu. Phase 1 of Hambanthota Port is almost complete and will comprise a 610m-long general cargo berth, 100m service berth, 300m gas berth and 16m-deep entrance channel.

Container volumes are growing fast in South Asia, so ports are busy raising funds for expansion from the public and private sectors. However, priorities and strategies vary - environmental issues may be important in one region, whereas security is the priority in another. IAPH's regional meeting in March will provide a platform to discuss issues affecting the Asia and Oceania region.

IAPH has a regional meeting in Seattle in September, a meeting in Antwerp in December and then the Colombo meeting in March. I encourage all P&H readers to join us at one of the regional meetings to discuss the issues affecting your area. PH

Port updates

MAERSK TO PNG

Maersk Line started a new fortnightly liner service to Papua New Guinea on 30 May. The PNG Express service will employ two vessels – one of 874teu capacity with 314 reefer plugs and the other of 712teu capacity with 220 reefer plugs. The port rotation will be Tanjung Pelepas–Jakarta–Port Moresby–Lae–Madang–Tanjung Pelepas. The PNG market will see "significant growth over the next few years and this growth will require more capital to support the supply chain in and out of the country," said Maersk Line in a statement.

HHLA FIGURES INCREASE

Container terminal operator, HHLA, has seen container liftings at its terminals in Hamburg and a facility in Odessa rise from 2.6M teu last year to 3.4M teu, the company said on 12 August. Turnover was up 18.6% while its operating profit rose by 14.4% to €93.1M (\$143.4M). The company also tightened its intermodal network in central Europe by using a recently opened inland container terminal in the Czech Republic. It also plans to open another terminal in Poland.

MOBILE COAL EXPORTS

Port of Mobile, USA, received Alabama State Port Authority's largest-ever shipment at its Pinto Steel Terminal in June. The *Britannia* G – the first post-Panamax vessel handled at the terminal – offloaded 4,243 carbon steel slabs. It then moved to McDuffie Terminal to load one of ASPA's largest exports of coal. ASPA director and CEO Jimmy Lyons acknowledged the significance of the first post-Panamax shipment of Brazilian-produced cargo. "Our infrastructure investments at the Port of Mobile to handle larger vessels are beginning to pay off," he stated.

CALLAO CONCESSION

APM Terminals officially took over the responsibility and management for Terminal Muelle Norte in Callao, Peru, on 1 July. In accordance with the concession terms, tariff charges will be reduced by 15–18%, bringing immediate cost savings to the terminal's customers, APMT stated.



Andreas Tonke of BSH: truck shortages have prompted a shift from road to sea

European shortsea moves up the agenda for large shippers

Intermodal shortsea cargoes will offer a growing niche for ports in northern Europe and along Europe's Atlantic coast, according to leading vessel operators and cargo owners. Congestion and erratic freight rates in the road transport sector are seen as pivotal factors that will drive industrial and consumer goods shippers to shift traffic from road to sea.

The ranks of the shortsea users have recently been bolstered by German white-goods producer Bosch und Siemens Hausgeräte (BSH). Speaking at an industry conference in Hamburg, the group's head of transport management, Andreas Tonke, revealed that 60% of the BSH delivery volume from Germany to Russia had been shifted from road to shortsea container traffic and rail. Its deliveries to Russia totalled around 5,000 full truck loads last year.

Chief beneficiaries of the logistics restructuring are Hamburg and Rotterdam as loading ports for BSH products and St Petersburg as port of discharge. Danish feeder and shortsea operator Unifeeder has been awarded the contract of affreightment. Tonke explained that the move from road to intermodal ocean and rail was driven by a convergence of factors, including regulatory issues, seasonal capacity shortages in the supply of trucks and trailers and new sales terms. A gradual switch from ex-works sales to local delivery in Russia allowed BSH to get a grip on transport operations that were previously managed by the Russian consignees. "It's been a steep learning curve for us," admitted Tonke.

The initial strategy was to move



OPDR's Wessels reports higher perishables flows

its whole range of household appliances to the Moscow area by road. Peak volumes are moved in the August-October period, and this seasonality has always been challenging because of the restricted availability of trucks, but it was a regulatory argument between Russia and Poland over road carrier licences at the end of 2010 that proved to be the tipping point. Road operators' capacity diminished to such an extent that BSH was forced to organise at very short notice a dedicated train service to Russia to prevent a breakdown in deliveries. It then put in place a permanent intermodal solution with roughly equal amounts of cargo carried by shortsea and rail operators. Tonke said. "We see a tremendous increase in road freight costs only related to the diesel fuel element, which for us means that trucks cannot be the mode of transport for long routes," he explained.

One of the freight forwarders assisting BSH, Munich-based Kukla, said that enquiries from shippers for maritime solutions for intra-European traffic had been rising steadily. "We see high demand for such multimodal solutions in the market," said Kukla managing director Knut Sander. The volume of intermodal box traffic it manages reached 60,000teu last year and is still growing, he said. The advantage of ocean containers - ideally palletwide, high-cube 45ft boxes – is the reliable supply of capacity, even during the third-quarter peak season. "The stability aspect is key for our customers", explained Sander. "We also work for customers in the beverages sector, where volumes can suddenly explode. However, we never run out of containers."

Meanwhile, shortsea operator Unifeeder achieved rapid gains in the sector after diversifying from transhipment/feeder cargoes into shortsea door-todoor. It is already moving more than 200,000teu of shortsea cargo a year and it is seeking to more than double the volume to 500,000teu by 2015

Unifeeder's managing director of German operations, Bernd Bertram, said that despite much lobbying and political support for a modal shift from road to sea, awareness of shortsea options among domestic European shippers remains rather low. "But the market is there," Bertram declared. "We need to get out of our chairs and go to the customers. We have only scratched the surface."

Opportunities exist in north– south European trade too, specifically from Spain and Portugal to Benelux and German ports. Carriers active on this route – Hamburg's OPDR, X-Press Container Line and Samskip, for example – have recently increased their sailing frequencies, partly through service amalgamations, to offer shippers more flexible options and encourage traffic to shift from road to sea.

Dirk Wessels, line manager with German operator OPDR, is seeing more use of shortsea options by perishable commodities traders, particularly in the high-volume fruit and vegetable trade between Spain and northern Europe.

Only a few boxes lost at sea

The volume of containerised cargo lost at sea is much smaller than previously estimated, said the World Shipping Council in August. The Washington-based liner lobby organisation revealed that, according to a fresh survey, around 675 containers are lost overboard worldwide each year, against previous estimates that put the number at between 2,000 and 10,000 containers.

When exceptional events such as groundings or collisions are excluded, only 350 containers a year are lost, estimates WSC, which said the figure "represents a very small fraction of container loads shipped each year." Total loaded container traffic reached about 10M boxes last year, it added. WSC's estimate was extrapolated from a poll of carriers that represent more than 70% of global slot capacity. The loss of containers as a result of severe weather is usually outside the control of carriers, hence such events are unlikely to disappear completely, said WSC. It pointed out, however, that the container shipping industry continues to support initiatives aimed at reducing the number of containers lost at sea. These include the Lashing@Sea project, led by the Maritime Research Institute of the Netherlands (MARIN); publication of guidance, *Safe Transport of Containers by Sea*, jointly by the International Chamber of Shipping and the WCS; and the development by the United Nations of a code of practice for the packing of cargo transport units.

Greece to sell share of ports to private operators

The Greek government on 9 June outlined its plans to sell stakes at its two major ports: Piraeus, the country's leading port near Athens, and Thessaloniki, capital of the Macedonia region. It expects to have completed the sale by the end of the year.

The government revealed it is offering 23.3% of its shares in Thessaloniki and 21.3% of its shares in Piraeus. Prime Minister George Papandreou hopes to have completed the sale of the Piraeus shares by the end of August and the Thessaloniki stake by December.

The sale has divided opinion in Greece. Those opposed to it argue that the ports are valuable assets that should remain in state ownership. Instead, they suggest, management of parts of the ports should be offered to private companies in the form of timelimited concessions, as is already the case at Piraeus where Pier II of its container terminal is being run by COSCO Pacific.

The government, though, is desperate to pull the country out

of its financial situation. The sale of the stakes is part of an effort to pay off debts that are estimated at about €300Bn (\$433Bn). Shares will also be sold in other government-controlled entities, such as Athens International Airport and the state railways. The latter can be linked to the ports and so form an extended supply chain. Greek law requires the government to own at least 51% of its top ports, so the maximum scope for sell-off is 49%.

On 30 July, the Greek daily newspaper Naftemporiki reported that companies interested in buving shares in Thessaloniki include big names, such as COSCO, DP World and Hutchison Ports. The latter won a concession to run part of the port a few years ago, but its plans were dropped in December 2008 because of the global financial crisis. Although a smaller port than Piraeus, Thessaloniki is considered a more strategic location, because it is closer to the Balkan heartland, which makes it a key component of a global sea-land supply chain.

Port updates

SALALAH GRABS BULK

Port of Salalah General Cargo Terminal (GCT), Oman, received new bulk handling equipment, including three heavy-duty wire rope grabs, on 23 June. The equipment is intended to help improve efficiency and is part of the port's investment in expansion of its general cargo operations, the port said in a statement. They grabs will be used to handle limestone, gypsum, iron ore, corn and wheat and are expected to cut loading time by 40%.

SINGAPORE SPECIALISTS

Singapore's port operators launched a training scheme for up to 10,000 port workers on 24 June. The Workforce Development Agency, together with port operators PSA International and Jurong Port, have developed the Port Services Workforce Skills Qualifications Framework, which provides a structured pathway for port employees to specialise in selected port operations. The programme opens with specialisation tracks for lashing specialists and mobile equipment operators such as prime mover drivers.

BARCELONA TO GRIMALDI

The Grimaldi Group has pledged to invest €20M (\$29M) in developing the new Muelle Costa terminal at Barcelona after being awarded a 15year concession, renewable for a further 7.5 years. The terminal will have a surface area of 60,000m² and be equipped with storage facilities and a passenger terminal offering direct access to ships via a footbridge. In late July a final agreement on the project had yet to be concluded, a Grimaldi spokesperson said.

CRANES FOR HIT

Ten new hybrid rubber-tyred gantry cranes (RTGs) were delivered to Hongkong International Terminals (HIT) on 5 July. The cranes have 41tonne lifting capacity and bring the total number of RTGs at the terminal to 136. Ivor Chow, managing director of HIT, declared in a statement: "The arrival of the cranes is part of our ongoing effort to strengthen yard operations and enhance overall operational efficiency."

Port updates

ASIA TO NZ SERVICES

A weekly service connecting Asia, Fiji and New Zealand was launched by CMA CGM on 18 July. The new service uses seven ships of 1,800teu and offers calls at both North Island and South Island in New Zealand, plus fast transit times between Shanghai and Auckland, and between Tauranga, New Zealand, and Port Kelang, Malaysia.

MOL INCREASES CAPACITY

MOL announced in June a decision to order two 8,600teu box ships from Mitsubishi Heavy Industries, with delivery slated for 2013. The vessels will join MOL's existing eight 8,100teu ships and will be deployed on Asia– Europe routes. In addition, it has reached agreement with NOL Group for a three-year charter of five 14,000teu container ships that NOL has on order. The five ships will be delivered in 2013 and 2014 and will also serve on the Asia–Europe routes.

SAUDI/SINGAPORE JV

PSA International has formed a joint venture with Saudi Arabia's Public Investment Fund to develop and operate a box terminal at Dammam. The Saudi Global Ports joint venture will develop the terminal at King Abdul Aziz Port, which is linked by rail and road to the rest of the country. When completed, the facility will have a quay length of 1,200m, served by 12 quay cranes, and total capacity is planned to reach 1.8M teu a year.

CAPESIZE TO CHINA

Brokers have recently revealed that interest is growing in hiring Capesize vessels to ship South African steam coal to China. One broker noted that Chinese buyers are enquiring about loading coal in Richards Bay. An IHS McCloskey analyst told Ports & Harbors that Chinese coal buyers want to discharge the coal at Qingdao and Lianyungang. "Within South China the most used proper Cape port is Xiamen, but this is always pretty congested and it's tough getting in there apparently, so often Capesizes go past up to Qingdao and Lianyungang. The cargoes can then be railed or reshipped in smaller vessels and sent back down south," said the analyst.



Think safety when buying cranes

TT Club has published a list of standard safety features for container quay cranes. It is intended for use both by terminal operators planning to buy the equipment and for crane manufacturers. The guidance was prompted by a global analysis of insurance claims by ports and terminals that showed that container quay cranes account for 34% of the cost of asset-related claims worldwide.

"This list is based on the highcost accidents we have noted around the world and features we know will prevent them," Laurence Jones, the club's director global risk assessment, told *P&H*. The full list of safety features can be viewed at www.ttclub.com/ publications/crane-safety-recommendations.

Various technologies exist that can significantly improve the safe performance of quay container cranes and help address some of the most common causes of accidents and claims, but many of these features are not currently included as standard on new equipment. "We encourage the terminals to use this list of safety features in their order specs for new cranes as we encourage the manufacturers to include them as standard features and not just options," he said.

"A couple of years ago I looked at incidents such as boom collisions, which are preventable and not very expensive to retrofit, Boom-to-ship collisions are the single largest cost of operational claims by ports and terminals, according to a global analysis by the TT Club

but we discovered that many terminals were not retrofitting suitable improvements and neither were they including essential safety features in their order specs for new cranes."

Jones pointed out that manufacturers were also to blame, since any supplier will ensure it offers the lowest quote by using the cheapest device that complies with the terminal's order specification. "For example, to comply with a request for a boom anti-collision device, many manufacturers will provide a lanyard or trip-wire system – it's very cheap and technically it provides boom anti-collision, but it isn't adequate," he said.

TT Club recommends use of electronic sensors designed specifically for this application. Jones pointed out that cutting corners on price was a false economy, since if a boom collides with the superstructure of the ship it is unloading it can result in a crane being out of commission for six months.

The club has now started to turn its attention to drawing up safety recommendations for other cranes and port equipment. "We are looking at other types of crane next, but this will take time, since we want to get input from everybody," Jones said.

PIL returns to Colombo

Pacific International Lines (PIL) has added the Jaya Container Terminal (JCT) in Colombo, Sri Lanka, to its East Africa–Far East Service, with a weekly frequency connecting southeast Asia and east Africa and also the Indian subcontinent.

"We have been calling at Colombo for the past 20 years, but the service was withdrawn and now we have reintroduced it," said a spokesman for the Singapore carrier's agent, Eastern Maritime.

"Business has been growing, especially transhipment business from China and the Indian subcontinent to east Africa. We expect transhipment cargo from the subcontinent to go via Colombo. Sri Lankan and Indian exporters will have easier access to east African markets by the service calling in Colombo," said the spokesman.

The service will be known as EA2 and will use vessels of 1,800teu capacity. The Sri Lanka Ports Authority announced that PIL will deploy six container ships on the route. The first ship, *Wehr Rissen*, called at the JCT on 29 July.

Previously, there were no direct calls to east Africa, and PIL was serving the market via Singapore. PIL hopes that the service will offer shippers faster transit times and reduced costs, the spokesman said. "Also, Sri Lankan importers will have more opportunities to bring imports from China through direct calls from China to Colombo."

ABPFINLAND TERMINAL



Impact Handling helps Associated British Ports' Finland Terminal to keep the paper trail clear

The Finland Terminal at Hull handles over 700,000 tonnes of forest products every year – primarily sheeted paper and timber – and handles trade exclusively from and to Finland. It is operated by Associated British Ports on behalf of Finnlines PLC and paper manufacturers UPM-Kymmene Corporation, M-real Alliance and Myllykoski Paper Oy.

In order to ensure smooth handling operations, Finland Terminal has enhanced its fleet with eight new Kalmar DCE80 trucks, run on a seven-year, fully-maintained, contract hire deal. **Impact Handling** supplied the new trucks and looks after the existing fleet.

"The trucks are equipped with reel clamp attachments and are solely employed on handling paper reel cargoes," says Danny Carmichael, ABP Operations Manager, Finland Terminal. "We chose the Kalmar trucks because they match existing fleet specifications.

"That was a key factor for us and fits in with our storage operation," he continues. "The trucks are narrower and have a good lift capacity, at eight tonnes." Finland Terminal uses narrower vehicles in order to maximise its storage area and operational efficiency. Its choice was made a bit easier because the company has experience of the Kalmar DCE80's.

"We already have five and they have been very reliable," Carmichael says. "The paper reels are stored quite high and the operator position in the truck is slightly taller than other vehicles, so they are more comfortable and offer good visibility. They are head and shoulders above others in ergonomics."







Cash & Cargo

ZEELAND FERTILISED

First-half throughput in Zeeland's ports was higher against the same period last year. Imports and exports rose 11% in January–June 2011 compared with 2010, the port stated. All goods showed growth except solid fuels, minerals and building materials. The highest percentage growth cargoes were agricultural products and food products, ores, metals and fertilisers.

LE HAVRE BOXES SINK

Le Havre's first-half box throughput fell 12. 8% year on year as the port suffered a sharp drop in transhipment business. The French port said that the winter's labour strife over the government's port changes affected traffic, because shipping companies changed their itineraries. This resulted in throughput of 10.01M tonnes.

BOTANY'S BIG ON BOXES

Container trade through Port Botany grew by 6.1% in May 2011 compared with the same month last year, Sydney Ports CEO Grant Gilfillan announced at the end of June. Box volume through Port Botany was over 161,750teu, with the port handling an average of 5,200teu, he said. "As the financial year draws to a close, Port Botany remains on track to register its tenth consecutive annual growth record."

FERRIES BOOST KIEL

The Port of Kiel, Germany, handled more than 3.2M tonnes of cargo between January and June – 20% more than in the same period of last year. The port attributes this to ferry services to and from Scandinavia, Russia and the Baltic region. Cargo handling and other port services, such as warehousing and cargo transhipment, have also risen sharply, the port stated. Intermodal rail-ship traffic increased too.

ANTWERP INCREASE

Port of Antwerp handled 96M tonnes of freight, representing an increase of 10.4% compared with 1H/2010, according to a statement. Container volumes also went up by 3.4% in comparison with the same period in 2010, from 51.3M to 53M tonnes.



Port of Long Beach does not believe that its business has been greatly affected by the fuel switch

A Californian regulation requiring inbound vessels to switch to lowsulphur distillate fuel is costing Los Angeles port customers more money, but there is little evidence that it is hampering port business.

The state fuel switching zone came into effect in 2009 and extends 24nm from the shore. In June, the California Air Resources Board (CARB) proposed extending the zone to incorporate a popular detour area that ships bound for Los Angeles and Long Beach have been using to avoid having to burn the costlier fuel. The proposal is expected to be approved by state regulators and could come into effect in January 2012.

Vessel operators have estimated that they were saving \$10,000 per trip by using the detour, which took their ships around the Channel Islands but added only a little more time to the voyage. T L Garrett, vice-president of the carrier group Pacific Merchant Shipping Association, said that a "vast majority" of the nearly 60% of ships which use the detour will probably go back inside the channel if the plan goes ahead.

Nevertheless, Garrett expected that some vessel operators will "do whatever is necessary to minimise the amount of time that they're subject to this regulation, which could mean going even further out" to avoid the extended zone. That could result in ships choosing to avoid Los Angeles and Long Beach altogether.

Neither port believes the fuel switch zone has had an effect on commerce, because carriers and shippers are budgeting for higher environmental costs in their planning strategies. The Port of Los Angeles acknowledged to *P&H* the fuel requirement adds to the cost of doing business there at present. He pointed out, however, that a more stringent requirement will be imposed when the North American Emission Control Area (ECA) comes into force on 1 January 2015. Extending 200nm from the US and Canadian shoreline, the ECA will require 0.1% fuel sulphur – notably stricter than CARB's 0.5% sulphur limit.

Port of Long Beach spokesman Art Wong said that if port business has been affected by clean fuel switching, "it's certainly not much". Wong pointed out that Long Beach has been one of the most aggressive ports in reducing air emissions from trucks and trains as well as vessels, "and last year we increased volumes 25%, which is more than most ports".

Long Beach released the results of a study on 1 August that showed the port's clean-air programmes had reduced diesel particulates by 72% from 2005 to 2010. As Wong noted, "While some carriers are trying to push off cleaner fuel as long as they can, shippers are starting to insist that their supply chains are as green as possible, so we see fuel-switching as an advantage."

Hamburg Süd rewarded for lower sulphur

Hamburg Süd recently received two environmental awards. In July it received the Air Quality Award from the San Pedro Bay Ports Clean Air Action Group, supported by the ports of Los Angeles and Long Beach, and more recently the Gulf Guardian Award by the US Environmental Protection Agency, the shipping company said in a statement.

The company received its most recent accolade for its participation in voluntary measures aimed at

reducing emissions in the Gulf of Mexico. In trials, Hamburg Süd's container ship *Cap San Lorenzo* called at the ports of Veracruz, Altamira and Houston using low-sulphur marine gas oil, which has a sulphur content of 0.1%.

The carrier is also participating in the IAPH's WPCI Environmental Ship Index (see p40), which rewards seagoing ships that release fewer air emissions than the minimum stipulated by IMO's emission standards.

NEWS

PSA puts cash in Cuba

Singapore's PSA International has signed a contract to manage the new container terminal being built in Mariel, Cuba, it was reported in July.

Mariel, on the island's north shore and 150km south of Florida, is scheduled for completion by 2014. By then it will boast a 700m-berth with 15m draught and an annual capacity of between 800,000teu and 1M teu. Long-term plans include oil-services facilities and a special economic zone for manufacturing and storage. Cuba plans to shift all cargo operations from Havana to Mariel, dedicating Havana solely to cruise. Terminal construction is being handled by top Brazilian developer Odebrecht, funded by an \$800M pledge from Brazilian development bank BNDES.

Mariel is not, however, a grand transhipment project. The PSAmanaged port will be dedicated to domestic imports and exports. Carrier executives previously noted that Mariel's location on the northwest coast would require too great a route diversion for transhipment. A more suitable location for a Cuban container hub would be on the southeast coast, adjacent to the shipping lanes that link the US east coast to the Panama Canal.

"Everyone knows, including PSA, that Mariel is not the right place [for transhipment]," a regional port executive said. "But PSA will get to know the territory, how to train the local workers, what the cost of doing business in Cuba is, where the red tape is."

Container train service will provide mutual benefits

Estonia and Kazakhstan reached an agreement in July to operate a container train service between the two countries before the end of the year. It is hoped that it will result in increased throughput at the port of Tallinn, Estonia, increase the speed of rail transit and boost Kazakh exports.

The service will be jointly operated by the Kazakh national railway company, KTZ, and the cargo subsidiary of Estonian Railways, EVR Cargo.

"Existing cargo volumes from Estonia to Kazakhstan are much higher than in the opposite direction," explained Illimar Paul, development manager at Eesti Logistikaklaster (Estonian Logistics Cluster). "This is the main reason for launching a dedicated shuttle train service," he added.

The initial proposal is for at least half the containers returning from Kazakhstan to Estonia on the train to be loaded with cargoes such as iron, steel, aluminium, copper and other metals to the port of Tallinn. Estonia's main port has a fully operational container terminal at Muuga Harbour (actually located 17km east of Tallinn). In addition, a second container facility has just been built at Muuga, which will be operated from 2013 by the Russian group Rail Garant.

Other ports in the country are eager to participate in this trade, but are not yet able to handle containers, Paul said. "The port of Sillamae has plans to handle containers and has a deepwater quayside, terminal area and shipto-shore gantries, but it still has to identify an operator for the facility," he explained. "At present the new container train will only go to Tallinn."

Lying behind the agreement is a long history of productive cooperation between the two railway companies. Other factors include the opening of a new railway station at the border town of Koidula – the point at which cargo moves out of the European Union – and the new customs union linking Russia, Belarus and Kazakhstan.

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For further information contact IADC Secretariat: Mr. Jurgen Dhollander Phone: + 31 (0)70 352 33 34, dhollander@iadc-dredging.com Secretariat, PO Box 80521, 2508 GM The Hague, The Netherlands



International Association of Dredging Companies

People

COMOROS AT IMO

The Union of the Comoros, off the east coast of Africa, has appointed Sarosh Zaiwalla, senior partner of UK-based international arbitration and maritime law firm Zaiwalla & Co, as its permanent representative to the IMO. Zaiwalla told *P&H*: "Comoros would now like to have a higher profile in playing a greater role in international maritime affairs including playing a greater role in developing laws relating to seafarers and safety of vessels and protection of coastal waters from pollution and toxic dumping."

COMPTON RETIRES

The International Cargo Handling Coordination Association (ICHCA International Limited) is seeking to appoint a consultant to replace Mike Compton as its technical adviser. Compton started work at Port of London Authority in the early 1950s in a clerical role, moving quickly to operational duties. For the past 10 years he has worked for ICHCA International, including chairing the International Safety Panel.

PSA GETS NEW CEO

Tan Chong Meng will become PSA International's group CEO from 1 October. He replaces Eddie The, who decided to step down in August after nine years with the company. Tan was previously EVP for global business-tobusiness and lubricants at Shell Downstream, part of the Royal Dutch Shell Group. Within this role he led six global businesses, working in the USA, Europe, China and Singapore.

FEMALE PILOTS IN SA

Three Durban women have become Africa's first black, female marine pilots to obtain an open licence, enabling them to navigate ships of any size and type into South African waters, the South African port authority, Transet, said in a statement. Precious Dube, Bongiwe Mbambo and Pinky Zungu were three of the earliest candidates that took part in a development scheme introduced by the port authority in the late 1990s. They represent three of only five female marine pilots in South Africa.



Most cargo handling at Mogadishu relies on manual handling by stevedores

Famine aid places heavy burden on Mogadishu port

The famine declared by the United Nations in southern Somalia has focused attention on the country's main port of Mogadishu and its ability to cope with a major increase in international relief shipments entering the country.

The port suffered major damage from the 2004 tsunami and from the civil war that has been tearing the country apart in the past two decades. Until recently, five sunken wrecks partly blocked the port basin and its approaches. The tsunami and strong currents caused heavy silting of the access channels, which meant that only relatively small ships were able to unload at the quays.

Much of the reconstruction work carried out in recent years has been co-ordinated by the World Food Programme (WFP), which uses the port to bring in relief aid. "Four of the five wrecks sunk in the port basin have now been removed; salvage of the fifth vessel from the approach channel is expected to be completed this summer," Brenda Carter, former manager of WFP's port reconstruction programme, told Ports & Harbors. "The dredging work was completed in late 2009. Approximately 60,000M m³ was removed from the basin, leaving the key berths and approach channel at 10m draught. These works were undertaken by WFP, with support from the Japanese and German governments."

Although larger ships are now able to dock alongside, unloading can take up to a week. Rusted cranes unload the heavier bulk commodities, such as cement, which are then driven away by tractor and trailer. Some containers are also handled at the port, where the majority of cargo handling equipment is owned by private companies. Lighter cargo, such as bagged emergency aid supplies, continues to be manhandled by the Mogadishu's army of stevedores. "Discussions are under way between the UN Development Programme and the port authority regarding the acquisition of modern cranes," revealed Carter.

WFP has considerable logistics expertise and provides transport and storage services to nine United Nations agencies and 13 non-governmental organisations in Somalia. A new WFP warehouse holding an estimated 7,000 tonnes of humanitarian cargo is expected to be completed by the end of this year. "This was the largest warehouse that could be fitted into the plot of land available to WFP, taking into account security considerations," Carter said.

In addition to this, 114 marine fenders have been installed along 850m of quay, eight buoys and two land-based lighting masts have been installed as part of the navigational aids system and a control tower has been built to improve oversight of marine operations. Additional generators have been installed to provide a more reliable power supply and a 60,000-litre tank has been erected to ensure freshwater supplies.

"Since the refurbishment of the port's training hall was completed, capacity-building courses have been run for 24 members of the port management team, covering best practice in port management and marine operations," Carter said.



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Dredging

BEATING BILHARZIA

The Volta River Authority, Ghana, has signed a public-private partnership deal with construction company Soteg for the dredging of the estuary of the Lower Volta River from Akuse to Ada. The dredging should allow seawater intrusion into the river, to increase salinity and thereby reduce the incidence of the disease bilharzia.

GALVESTON FUNDED

The US Army Corps of Engineers, Galveston District, awarded a federally funded \$8M contract on 8 July to Manson Construction to dredge the Galveston entrance channel, inner harbor and Houston Ship Channel south of Redfish Island. Contractors will begin work in September in areas where high shoaling has occurred.

CANADA CONTRACT

As part of a \$37M harbor project, Sydney Ports Corporation of Canada has signed a \$22M dredging contract with Boskalis Westminster. Work will start in October when over 4M m³ of material from the 9km access channel will be removed over 12 weeks, using jumbo trailer suction hopper dredger *Oranje* to deepen the channel to 17m. This will allow the port to handle post-Panamax container ships.

MAASVLAKTE PROGRESS

Maasvlakte 2, the Port of Rotterdam expansion project, is proceeding on schedule and to budget, according to port authority chief executive Hans Smits. When *Ports & Harbors* went to press, work was focused on building the hard seawall, dredging the quays for the first container terminals and construction of roads, intersections, railways and pipelines.

CHINA INVESTMENT

According to China's Ministry of Transport, more than CNY36Bn (\$5.57Bn) will be spent in the next five years on dredging and navigation upgrades to the River Yangtze. China has invested more than \$11Bn in traffic development projects in the past five years, upgrading navigational channels, ports, shipping capacity, security and shipping services.



An iron ore terminal in Saldanha. The port is one of seven to benefit from \$16Bn of investment

Transnet of South Africa has announced the latest elements of its rolling five-year capital investment programme.

A total of Rd110.6Bn (\$16Bn) has been earmarked to increase capacity and improve efficiency at the seven ports it operates: Durban, Richards Bay, Cape Town, Port Elizabeth, Saldanha, East London and Mossel Bay. Ports will receive 28% of these funds.

In June this year Transnet introduced the Navis Sparcs N4 terminal operating system at its seventh and final port, enabling the authority to manage all its port operations from a single location in Durban. will extend the system into its rail operations – about 58% of the total investment will be spent on rail corridors connecting to the ports. A new 70km railway through Swaziland could also be built, to allow more coal trains to run on the existing Ermelo to Richards Bay corridor.

Transnet is keen to attract private investment for many of these developments, especially those that involve plans to increase exports of coal, iron ore and manganese. In addition, it is encouraging potential investors to look at the opportunities for taking a stake in three large inland container terminals in landlocked Gauteng province at TamboSprings, Pyramid and Sentrarand.

Transnet's largest project – which is separate from the \$16Bn investment - is focused on a major expansion scheme at Durban. The plan is to purchase a section of the old 600ha Durban International Airport site and build a dug-out container port between 2014/15 and 2019. The facility's annual capacity could be as high as 9M teu. Development in the first phase, involving up to 16 berths, is likely to cost \$7.3Bn, with a similar amount to be spent on later expansion. Several vehicle berths and four liquid bulk berths could also form part of the project, for which a pre-feasibility study could be started later this year.

From next year, the company

Korean steel-maker secures coal supplies

POSCO Canada (POSCAN), a division of Korean steelmaker POSCO International, will acquire 20% of the coal property at Mount Klappan, Canada, at a cost of C\$30M (\$31.7M) up front. It is believed to be one of the world's largest undeveloped deposits of anthracite coal, with speculative resources of 2.2Bn tonnes and measured resources of 107.9M tonnes. Altogether, POSCAN estimates that it will make total contributions amounting to C\$181M (\$191.1M).

The agreement will result in a joint venture – to be owned 80% by Fortune and 20% by POSCAN – that will accelerate development of the deposits in northwest British Columbia by combining Fortune's local development and operations expertise with POSCAN's market knowledge and financial backing. Investment relations manager Troy Nazarewicz of Fortune Minerals, which purchased the site in 2002, said that the mine is scheduled to go into production in 2014. Coal will be shipped through federally owned Ridley Terminals at the Port of Prince Rupert. This terminal is currently doubling its capacity from 12M tonnes/year to 24M tonnes/year by 2014.

The terminal is roughly 36 hours steaming time closer to Asia than other west coast North America terminals and this fact was a deciding factor for POSCO in choosing Ridley. The ice-free terminal, with 22m alongside depth, operates 24 hours a day, is capable of loading Capesize vessels and can arrange to share or blend cargoes with other coal producers in western Canada.



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Creating trust across the supply chain

ICHCA's *Carina Dixon* believes that supply chain security starts with the people you employ

Security across the supply chain is the equal responsibility of all the players involved. It goes beyond individual companies and national borders and relies on trust and co-operation. All those involved, from point of manufacture to delivery – truck hauliers, warehouse operators, customs and ports authorities, to name a few – need to play their part to ensure that a secure chain is available to enable the movement around the world of increasingly large volumes of cargo.

This is easier said than done. We all know that at the moment the world is not an equal playing field. Some countries have unstable governments, which often results in the proliferation of organised crime such as piracy and smuggling. It is difficult to see how trust can be fostered on a truly international level when security standards vary across countries and regions.

IMO, through its ISPS Code, and the World Customs Organization, with its Framework of Standards to Secure and Facilitate Global Trade (SAFE), have been proactive in providing the tools that should foster the trust and co-operation needed for the development of a secure chain. The authorised economic operator (AEO) scheme, which is part of the SAFE Framework, relies on a country or region adopting a supply chain security initiative. Various AEO schemes have been started, for example in the EU and China, but setting one up is a time-consuming process and requires agreements to be made with other countries. The USA, with its C-TPAT initiative – which was in existence before the SAFE Framework came out – and the EU, for example, have still to reach an agreement based on their individual initiatives.

These schemes are certainly a step forward, but at the moment it is left to governments to oversee the implementation of any initiative, international or regional, that may be adopted in that country. The ISPS Code, for example, is fit for purpose only if it is implemented and followed in the spirit in which it was created, but no single body or organisation has responsibility for checking global standards. The level and stringency of checking varies greatly around the world. Ports A and B may both be ISPS-compliant, but A may be far more engaged with the code, and therefore have a far higher level of security, than B. This is a major challenge when considering the

What's regulating supply chain security?

Regulation/initiative	
International Ship and Port Security (ISPS) Code	(
EU Port Security Directive	I
Container Security Initiative (CSI)	(
WCO SAFE Framework, inc authorised economic operator (AEO)	(
Customs-Trade Partnership Against Terrorism (C-TPAT)	l
Business Anti-Smuggling Coalition (BASC)	I
Transported Asset Protection Association (TAPA)	I
Source: Carina Dixon	

Area	Farticipants
Global	Ships and port facilities
Regional – Europe	Ports
Global – partial	Ports
Global – country	Supply chain
USA	Supply chain
Regional	Supply chain
Industry	Supply chain

truly international nature of the supply chain.

The standard *Specification for security* management systems for the supply chain (ISO 28000:2007) could go some way to solving this issue. This standard has the advantage of being internationally and independently checked by, for example, a class society. You could argue that the same problems will exist with different class societies adopting their own standards and it is true that the procedure for an organisation to issue 28000 accreditation will have be very carefully monitored.

I would like to see wider take-up of ISO 28000. It has seen a reasonable level of adoption, but many players within the supply chain view it as just another accreditation that has to be paid for. If the schemes initiated by the SAFE Framework incorporate ISO 28000 we would see a much wider takeup of the standard. C-TPAT acknowledges the benefits of ISO 28000, with DP World, for example, invited to join C-TPAT because it had that accreditation. Only a few minor adjustments to its security policy were required for the operator to join the US initiative.

These discussions are essential for the future of secure world trade and it is one in which everyone can play their part. I firmly believe that the best security that any company has is its workforce. Are your staff members keeping their eyes open within the port? Are they reporting anomalies and suspicious behaviour or suspect cargo? Are they checking container seals and reporting any that are broken to the authorities? No element of the supply chain works in isolation and each player must consider the bigger picture. I have been to ports where broken seals are merely replaced with new ones.

The security culture within a company is critical, but this is where the supply chain is falling down. Most operators within the

Supply chain security is rooted in good practice and a sound safety culture

Photo: NewMarket Partners

chain adopt a box-ticking attitude, yet security should be ingrained in the way the business is managed. Port authorities can play a huge role in encouraging this culture across terminal operators and other tenants, in the same way that they are leaders on environmental and health and safety issues.

The three most important elements of any secure supply chain are people, process and technology, in that order. Technology certainly has a role to play. There are numerous options available, many of which are complex, and it can be difficult to ascertain whether a piece of equipment is the correct choice for a specific facility. A robust decision-making process will help ensure that the correct equipment is purchased. Too often ports spend money on equipment that later proves **Carina Dixon**, ICHCA

inappropriate, and in some ports expensive equipment has been turned off and is lying idle because it is not fit for purpose.

It is also important that a facility considers its own individual needs. For example, in some parts of the world, security guards are a cheaper alternative to CCTV and may therefore be more appropriate.

Supply chain security does not have to be an expensive or time-consuming operation. It is rooted in good practice and a sound safety culture and should be taken seriously by all those participating in the supply chain. Each player should consider itself to be part of a chain, not a standalone entity. This culture is also appealing to shippers who want to know that their cargo is secure and that the containers carrying their cargo are not also loaded with contraband. In effect, it also makes good business sense. **PH**

Carina Dixon is a consultant at NewMarket Partners and chair of ICHCA's International Security Panel More info: www.ichca.com; www.newmarketpartners.co.uk



P&H's *Jem Newton* talks to the director of a new box terminal about security in one of the most violent cities of Colombia

Wilson Vinasco López can scarcely have noticed the killers approaching in his car wing mirror, if at all. The gunman riding pillion on a motorcycle shot him and his daughter Jackeline dead at traffic lights in the Colombian city of Cali before accelerating away.

Vinasco López, the boss of a major freight handling company at Buenaventura – Colombia's main Pacific port – was known for his uncompromising stance against corruption and drug smuggling, according to port sources.

His murder took place just over two years ago, but Buenaventura still lays claim to being one of the most dangerous ports in the world and its operators provide senior staff with personal security. "We have a security system for all senior staff and a security company monitoring the risk level and possible risk scenarios," Víctor Muñoz, the director of Buenaventura's new container terminal, TCBuen, told *P&H*. Carrying out daily activities is mostly a matter of using common sense, taking some precautions and avoiding dangerous locations, Muñoz said.

Fortunately for those working in the port, the Colombian government's drive to restore law and order in this once hyper-violent city has reduced the threat of attacks to manageable levels in recent years. In 2007, killings averaged three a day, according to law enforcement sources, giving Buenaventura one of the world's highest homicide rates. Since then the government has increased military patrols on its streets and deployed hundreds more police agents to monitor cargo movements. Government spending on local development has been boosted by support from the US development agency USAid. The United States is a major destination for the cocaine produced in Colombia's coca fields.

In addition to narcotics trafficking, Buenaventura faces the threat of terrorism, port sources explained.

Leftist insurgents of FARC (Armed Revolutionary Front of Colombia) operate in the Andean foothills behind the port and there has been an upsurge in guerrilla violence after the recent government crackdown. The FARC has been battling the Colombian authorities for more than four decades.

TCBuen is a private project built by Spanish operator TCB that opened in January. The port of Buenaventura is a strategic enclave for international shipping lines, being located midway between North and South America and close to the Panama Canal. "TCBuen maritime terminal is built between two poor shanty towns with social and political problems, but we are trying to improve the quality of life in these areas, involving the community in our corporate social responsibility programme," said Muñoz.

He explained that one of the region's traditional security problems was that ports had been used by many operators handling not only containers but also bulk, liquids, cars and general cargo. This multiplicity of operators and cargo had made it hard to impose adequate security on cargo leaving the port.

"At TCBuen, we are the only operator inside the facility and we are also the port authority and landlord, and that is a very important improvement to security," he explained. It enables a truly joined-up system to be put in place across the facility, he added. TCB has invested \$250M in the first of four planned development phases. The first-year capacity of TCBuen is expected to reach 260,000teu, increasing the total box capacity of the Buenaventura port by 30%.

More evidence of security is the high level of electronic surveillance that was built into the terminal. "We have 180 CCTV cameras and electronic security systems all around the perimeter. We can detect any attempt at intrusion electronically and the cameras will automatically focus on the intrusion," he said.

TCBuen monitors CCTV coverage 24 hours a

Image: Shutterstock

day and it will be the first port in Central and South America to implement optical character recognition (OCR) technology throughout the terminal, including the quayside and yards, supplied by APS Technology Group. Other ports in the region may have partial coverage, such as OCR gate surveillance at Chile's Valparaíso port.

at Buenaventura

APS has supplied TCBuen's automated gate system, quay crane OCR and its MatchMaker tractor identification system for both quay and RTG cranes. Also to be included in the project is a real-time container inventory and position determination system from Identec Solutions.

"The APS Technology solutions reduce the need for manual intervention at the terminal, increasing data accuracy, productivity and throughput capacity while greatly reducing our risk of smuggling, theft and injuries," said Muñoz.

He explained that because Colombia is involved in the illegal drug trade, the main challenge is the need to check the export containers and even the seals of empty containers leaving the port to make sure they have not been tampered with. He said the main role for security at the terminal was to recognise, analyse and manage the issues relating to security risks. "When export containers arrive at the port, the port police receive an electronic profile and on that basis they decide which containers they will inspect," he said.

"Our experience of cargo security at Buenaventura is very positive. At the TCBuen container terminal, there are slightly over 700 container movements a day in both incoming and outgoing traffic, and we are not aware of any breaches of security," commented Edgar Higuera, executive director of the chamber of logistic services of the National Business Association of Colombia.

"The terminal has also been able to count on a permanent presence of the Colombian national police, drugs police and both army and navy forces. Since the terminal was opened, cargo operations have been carried out both in day and night-time conditions without any threats to security being registered or any sign that the security threat level has increased," he told *P&H*.

The terminal has had to meet a few challenges since it opened in January: "Since we have introduced new technology to the port we all have had to change our mindset, including port users and the Colombian police and customs authorities," Muñoz explained. Many of the officials at the port were used to dealing with paper documents and had to be taught to handle electronic equipment such as hand-held scanners. **PH**



The new TCBuen container terminal is located between two poor areas of Buenaventura

Restricting access for high throughput

Poland's largest port and youngest container terminal want to present themselves as secure players, reports **Colin Graham** for *P*&*H*

> eepwater Container Terminal Gdansk (DCT Gdansk) is just three years old and already has drawn considerable praise for the success it has achieved through its relationship with one of the world's largest shipping companies, Maersk Line.

> On 29 June, *Emma Mærsk* brought in the terminal's millionth container and the port puts this success down to its ability to accommodate E class vessels. In May this year, *Eleonora Mærsk*, with its 15,550teu

capacity and 16m draught called at the port. A highprofile relationship such as this is clearly one that DCT Gdansk would like to maintain, so it is installing the very latest, state-of-the-art security technology.

The port as whole, of which DCT Gdansk is one of seven terminals, is well aware of its position and its need to be secure. Janusz Kasprowicz, public relations officer at the Port of Gdansk Authority, told *P&H:* "We are conscious of the fact that the European Union's sea border ends with Poland, meaning that, as an ISPS-certified port, we apply the principle of protecting the port with the help of the most capable technicians."

Being such a recent creation has allowed DCT Gdansk to acquire some of the more up-to-date methods in protection, CEO Boris Wenzel stated.

"To begin with, our yard is fenced," he said." This makes



A Maersk Line vessel comes in alongside at the deepwater terminal the facility secure. At DCT we have a sophisticated access control system with strict procedures for getting in and out of the terminal, a comprehensive and 24/7 security patrol at the gates and supervision of each track going in and out of the yard."

He added that a 'specialised' company is in charge of managing protection at the terminal and that the system it provides "includes CCTV, trained security guards and an access control system". The access control system, he went on, monitors different parts of the buildings inside the facility, while an electronic system controls the entrances and exits, which can operate to different security levels. "As a result," said Wenzel, "we can arrange for different levels of access according to the status of our employees."

Poland is a neighbour of the former Soviet Union

and its borders have been used as a smuggling route for contraband. After the country joined the European Union in 2004 it has seen illicit flows of goods such as cigarettes and alcohol from nearby Russia, Belarus and Ukraine, as they can be sold at far higher prices in Poland than in their countries of origin. Although smuggling hardly affects container deliveries to DCT Gdansk, the problem nevertheless warrants the facility taking certain precautions. The Polish customs service has therefore installed a mobile scanner to thwart the smuggling of illegal goods to and from Poland.

The terminal may become the focus of a more sustained security initiative, for the government is thinking of locating a fixed scanner there to monitor potential movements of contraband. "The possible 'fixed scanner' implementation is a government undertaking, with DCT Gdansk being considered as a possible terminal for the scanner to be installed," said Wenzel. "This is happening because our terminal handles far more goods than any other in Poland. Since the beginning of 2011 we've handled 45% of all the containers arriving [by sea] to Poland."

The 'fixed' aspect of the scanner is an exception to the overall concept for the terminal's security, which is increasingly focused on mobility. "We recently created a disaster recovery plan," said Wenzel. "A number of our employees work on laptops rather than PCs so as to provide total flexibility and continuity in the event of accidents occurring. This means that they can also manage this from outside the terminal, if required."

Precautions, such as preparing back-ups of computer servers and hard drives are integral to this type of operation, Wenzel added. "We also have some substitute computers, which can be activated in the event of a disaster. Our IT systems are tightly protected against attempts to hack the DCT's database, as well."

Not everything at a place of work can be controlled, however. Accidents can happen and safety and security are natural bedfellows when trying to ensure that operations are as sleek as possible at DCT Gdansk. "We are a responsible employer," said Wenzel. "We constantly inform our employees about the risks related to the type of work they do and as a result we do not tend to have serious accidents [here]." DCT has introduced rigorous health and training schedules for its staff, Wenzel added.

"All our new employees are instructed as to the rules and responsibilities issuing from the ISPS Code. DCT [personnel] also attend consolidated ISPS training once a year," said Wenzel.

The upshot is that the port as a whole – as well as DCT Gdansk – can claim to be one of the most secure in the Baltic region, according to Kasprowicz. "The port of Gdansk is one of the safest in the world and this has been widely recognised," he said. "For example, we handle the transit of cars from Asia to the Russian market without any problems."

Kasprowicz concluded: "Our facility is also safe in an ecological sense, with petroleum products being shipped here for around 40 years with no serious accidents ever occurring." PH

Miami to 2014 compete in 2014

Director **Bill Johnson** is overseeing three projects that will enable the Port of Miami to be a serious contender when the ships get bigger

o get ready for the opening of an expanded Panama Canal in 2014 and to remain competitive in the global market, the Port of Miami is undertaking infrastructure improvements worth more than \$2Bn. The ambitious roster of projects includes constructing a port tunnel for direct interstate highway access, restoring in-port rail linked to the national network and deepening the port channel to accommodate larger container ships.

All these projects, plus scores of other infrastructure upgrades, are designed to improve connectivity between the port facilities and transportation systems that support Miami's goal to double cargo traffic over the next decade. While experts debate how trade patterns will shift after the expanded canal opens, the port believes that significant scope exists for Atlantic ports such as Miami to capture a greater share of Asian trade. Regardless of the degree of the shift from west to east coast, 2014 is likely to have consequences for existing east coast trade. As the closest US port to the canal, the Port of Miami is betting on new opportunities to increase its stature as a logistical hub for international trade and commerce in the southeast of the USA.

The new port tunnel, now under construction, will serve as a dedicated road connection from the port to the country's interstate highway system. The \$600M project consists of placing twin tubes, each 1,190m in length and 12.5m in diameter, beneath Biscayne Bay at depths reaching 36.5m. The project is being constructed under a private-public partnership of three governmental entities and a private consortium that includes Bouygues Civil Works (which was responsible for the French portion of the Channel Tunnel between France and the UK).

Completion is scheduled for 2014. Once operational, the tunnel is expected to handle about 80% of the traffic that currently has to travel through downtown residential streets to reach the port. By reducing travel time for truck drivers, this re-routeing will make operations more efficient and, importantly, help relieve traffic congestion in the heart of what is one of the largest urban areas in the southeast.

The in-port railway system is being relinked to the national railway network, to improve connectivity





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Post-Panamax vessels will bring goods closer to interior markets now served by west coast ports

Bill Johnson, Director, Port of Miami

between quayside and hinterland. With support of a \$23M US economic stimulus grant, Florida East Coast (FEC) Railway tracks between the port and an intermodal railway yard 19km to the west are being restored. When completed, the connection will provide additional opportunities for logistics services providers, shippers and freight forwarders to move cargo. The FEC–Port of Miami connection will reduce time to market and allow the port's customers to lower inventory costs. More than 70% of the US population can be reached by rail from Port of Miami within three or four days.

The third, and perhaps most critical, project has been dubbed the 'Deep Dredge'. The expansion of the Panama Canal will enable shipping interests to make use of new all-water routes to the east coast employing the post-Panamax ships that from 2014 will be able to sail through the canal. These vessels will bring goods closer to interior markets that today are served by west coast ports. Atlantic ports that can accommodate the latest deep-draught cargo vessels offer shippers the opportunity to shave costs by taking advantage of improved logistics options. The pressure is on US ports to meet the 50ft (15.2m) depth requirements.

The effort to secure funding for the Deep Dredge project – deepening Miami Harbor to between 15.2m and 15.8m – took on added importance earlier this year as the US Army Corps of Engineers neared completion of the preliminary design and engineering phase of the project. To synchronise the work with the expanded canal's 2014 opening, it was essential that funding be secured to move the \$137M project forward to the construction phase.

Fortunately for Port of Miami, Florida's new governor has made economic development in the state his administration's top priority and understands the wisdom of investing state dollars to keep the dredging on track. The project is fully funded and construction is expected to begin next year, making Port of Miami the only US port south of Norfolk, Virginia, that will be able be to receive post-Panamax vessels by 2014.

Much work lies ahead. The port is situated on Biscayne Bay, which includes important marine habitats. In the surrounding area are beaches, mangroves, seagrass beds and reef communities. Because of the ecologically diverse marine resources near the port, any construction, maintenance or operational activities receive close attention not only from governmental regulators but also from the community at large. Dredging therefore has to be closely co-ordinated with the resources agencies, stakeholders and members of the surrounding community. The Port of Miami is committed to protecting the marine environment and ensuring that it supports sustainable and environment-friendly operations.

These major infrastructure projects – port tunnel, railway connections and Deep Dredge – will transform what is now the USA's 11th-largest container port. The Port of Miami has set an ambitious goal to double cargo traffic over the next decade. Long known as the 'Gateway to Latin America' for cargo and serving as a hub for north–south trade between the Americas, the port is poised to expand its reach significantly and capture additional east–west trade. China is Miami's top trading partner today and Asian trade is expected to grow substantially for Atlantic ports in the post-Panamax world. The Port of Miami will be ready to compete for this business. **PH**

Bill Johnson is IAPH's 3rd VP for the Americas region



CMA-CGM Don Carlos in Miami: it is the largest cargo ship to have visited a Florida port



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Latin America gears up for canal

Port operators in Latin America are intensely focused on the game-changing opportunities presented by Panama San Ant<mark>onio</mark> Canal expansion, discovers reporter Michele Labrut

The clock is ticking on investment plans. When Panama's new locks are inaugurated in 2014, channels will allow the transit of post-Panamax container ships, Suezmax tankers, Capesize bulkers, LNG carriers and larger cruise ships.

"The expansion will affect both ends - origin and destination - because the economies of scale of using larger ships will benefit the whole supply chain," Rodolfo Sabonge, Panama Canal Authority (ACP) VP for research and market analysis, told the recent American

Association of Port Authorities (AAPA) Congress in Lima, Peru.

It is "a net positive for most [Latin American] ports and especially those that are banking on an increase in transhipment volumes," strategist Robert West at contractor WorleyParsons told Ports & Harbors. "Liner services most likely will decrease transits through the canal, as the larger vessels

CHILE

Buenos Aires

ARGENTINA

SPRC

Liner services transiting the expanded Panama Canal will decrease

Rodolfo Sabonge

VP research & market analysis, ACP

will be able to carry more than twice the containers of the existing Panamax vessels," noted Sabonge. This, in turn, is likely to fuel transhipment. To pave the way for future feeder services, Latin American countries should pursue regional talks on coastal shipping regulations, advised Carlos Urriola, SVP of Seattle-based Carrix and general manager of Panama's Manzanillo

International Terminal.

Urriola believes the region's port community is "living in its best hour", predicting that Mexico, Colombia, Brazil, Peru and Chile will see potential intra-regional trade growth. After canal expansion, even Latin American terminals served by feeder (rather than direct) services will have to prepare for larger vessels, cascaded down to these services as they are replaced by even bigger newbuilds.

"It is difficult to predict market conditions post-2014. Not all ports in the region will have to expand to receive 'new' Panamax ships," suggested APM Terminals Americas business development manager Robert Bosman. "However, when you consider the new canal locks, the inherent redesign of shipping line networks to deploy larger vessels, the cascading effects of ships to other strings and healthy regional growth – there is a need for upgrading port infrastructure in the region," he affirmed. "Upgrading ports takes time, so you have to start now," Bosman stressed. "But not all ports are the same. Ideally, a port should determine which market segment it is targeting and then decide its investment programmes. It is obviously important to do that 'market reality check' and then invest."

One port operator that has already invested heavily in preparation for canal expansion is Colombia's SPRC (Sociedad Portuaria Regional de Cartagena), which operates the Manga and Contecar terminals in Cartagena on the shores of the Caribbean. "The traditional importance of the Caribbean for global trade will be strengthened when the larger post-Panamax vessels transit the expanded Panama Canal," SPRC general manager Captain Alfonso Salas told *P&H*.

Capacity at Manga will reach 1.5M teu a year by 2012, with Contecar rising to 3M teu a year by 2017, declared Salas. New berths at Contecar are being specifically designed to handle the larger ships to pass through the expanded canal. "Cartagena is a well-managed port with connections to Colombia's interior markets," explained West, who believes its "transhipment future should be bright".

Photo:

Panama

Canal Authorit

Elsewhere in Colombia, West noted that "Santa Marta, operating at full capacity now, is seeking ways to expand. The future of Santa Marta will likely be running at full capacity for many years to come." New Colombian port development is also being spurred by coal exports – which should see new trade patterns emerge when the Panama Canal is expanded.

"Much of the new volume growth in Colombian ports comes from the need for capacity to handle the growing demand for Colombia's high-quality coal," explained West, who cited the creation of two new ports for exports, Puerto Brisa and Puerto Dibulla on the Atlantic Coast.

Other regional expansion projects are under way in Peru and Costa Rica. Peru has fully privatised its largest port, Callao. DP World began operations at its \$352M, newly constructed container terminal last year and plans to invest a total of \$700M. APM Terminals began its 30-year concession for Callao's Pier North on 1 July. APM Terminals plans to invest \$750M in three phases, increasing capacity to 2.9M teu per year by 2020.

In Callao, both DPW and APM Terminals "have picked the perfect transhipment point along the west coast of South America", believes West. "It's exactly halfway between Balboa, Panama, and San Antonio, Chile. Plus, the Peru market outlook is strong, based on an opentrade philosophy, favourable investment conditions and a growing middle class."

In Costa Rica, APMTerminals will build the \$1BN Moin Container Terminal, bringing added value to reduce the costs of the logistics chain and allowing access for larger ships thanks to a design depth of 16m.

Of all the Latin American countries set to profit from canal expansion, there is one whose ports will benefit directly: Panama. Prospects have already spurred growth commitments. On the Atlantic side, Urriola confirmed that Manzanillo International Terminal has approved "an additional \$200M–300M investment to prepare for inauguration of the third set of locks in 2014 and plans to build new piers and purchase equipment for the future post-Panamax vessels".

Meanwhile, Hutchison's Panama Ports Company is building a new 350m quay with four post-Panamax cranes and is designing an additional 420m berth in Cristobal. As work on the canal progresses, terminal executives across the region must weigh the risks against the rewards of canal-linked expansion.

Some are sceptical. One executive from a major international port company felt that it is unlikely that all will benefit from canal expansion. "Transhipment cargo is extremely volatile and will grow in ports that have invested in their facilities," he said. "But it is difficult to know if there will be such cargo for all the ports. You need lots of investment – combined with a big domestic link." Bosman advised: "Stay close to your customers to determine the right investment strategy that can beat competition. It's a fine balance." **PH**

BRAZIL

Rio de Janeiro 📕

URUGUAY Montevideo

Greening we converse with the world's ports

P&H looks at the progress in advancing IAPH's World Ports Climate Initiative to create cleaner and more sustainable ports

APH's World Ports Climate Initiative (WPCI) has initiated eight projects (see box) in recent years to ensure that tomorrow's ports will be greener places in which to live and work. All eight have the ultimate aim of cutting greenhouse gas emissions in ports and increasing use of renewable energy sources.

As a result of recent and pending legislation, the cargo industry will soon be obliged to run both ships and port equipment on cleaner and more renewable forms of energy. The Port Environment Committee's project promoting cleaner vessels fuelled by LNG, launched in Busan in May (see *P&H*, July issue, p40), is now seen as timely because in July the IMO finally announced after years of deliberation that it would impose mandatory design and operational standards for all new ships coming into service from 2013 (see this issue, p42).

Hitherto, emissions legislation had been introduced only on a piecemeal regional basis, such as initiatives in the European Union and US west coast ports. The IMO announcement may act as a tipping point in the global drive to reduce ship emissions, simultaneously bringing about a general improvement in port air quality. Europe and the west coast of the USA are also the areas where the greatest progress has been made in advancing WPCI projects. For example, Scandinavia has made great strides in introducing onshore power supply in ports where ships have long dwell times, while the Port of Los Angeles has pioneered the launch of terminal leases under which operators agree to adhere to long-term sustainable environmental criteria. Europe has also been at the forefront in introducing the Environmental Ship Index, with Antwerp and Hamburg being the latest ports to launch ESI initiatives (see this issue, p40).

LNG fuel is of interest to both ship operators and ports because it reduces or eliminates many of the emissions targeted by current and proposed IMO measures. According to research carried out by Marintek – Norway's marine technology research institute – LNG entirely eliminates sulphur emissions and reduces nitrogen oxides by 80–90%. Carbon dioxide emissions are reduced by 26% and particulate matter emissions are close to zero.

The goal of WPCI's LNG project is to develop international standards, assess the possible impact of introducing LNG infrastructure at ports and look at the legal aspects of LNG as an alternative fuel to conventional fuels for ships.

One point of concern the project will address is the creation of international safety standards, focusing particularly on bunkering in ports. "Currently there are no standards available, only local guidelines," Port of Amsterdam environment and safety policy adviser Henri van der Weide told *P&H*.

In principle, ships can bunker LNG safely in ports, as is demonstrated by Norwegian pilot schemes involving domestic ferries in the fjords. The LNG-fuelled car ferry *Glutra* has been operating a cross-fjord service from the port of Molde since February 2000. Owner Fjord1 has gradually increased the number of LNG ferries operating along the Norwegian coastline and aims to have 12 in operation by the end of this year.

Per Magne Einang, research director of Marintek, said ferries have now been



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We're supportive of LNG demonstration projects that could assist our tenants

Lisa Wunder, environment specialist, Port of Los Angeles

> bunkering LNG in ports for more than a decade and so far have prompted no safety concerns. "Most of the bunkering occurs without passengers on board and at night. This is not for safety reasons but is most convenient for the logistics of the ferry operator," he told *Ports & Harbors*.

> Bunkering takes place in the vicinity of the ferry terminals and the usual setup involves two adjacent berths. "One ferry is bunkering at one of the berths, while the second ferry uses the other for operations. At the biggest ferry terminal outside Bergen, they move the ferry a few metres along the quayline from the terminal to the bunkering station," he said. Bunkering takes up to four hours, although some of the smaller ferries have reduced this operation to less than three hours – a little slower than bunkering conventional fuels on a similar-sized vessel, a commentator told *P&H*.

Apart from ferries, only patrol and platform supply vessels have so far been powered by LNG, although there are advanced plans to power cargo ships. Norway's largest liner operator, SeaCargo, has two roro ships powered by LNG engines on order at Bharati Shipyard in India, due for delivery this year.

Yet despite the positive Norwegian experience, public safety concerns are among the main reasons why ports outside Scandinavia have been slow to introduce LNG facilities. Safety, therefore, is one of the areas that the WPCI project will investigate in detail.

The Port of Los Angeles is one of the ports looking at the possible impact of LNG-fuelled vessels and infrastructure and has announced its intention to participate in the LNG project.

"We're supportive of LNG demonstration projects that could assist our tenants with alternative compliance for the upcoming California Air Resources Board regulation requiring use of onshore power at berth," Lisa Wunder, the Port of Los Angeles' lead for WPCI, told *P&H*.

In 2008, Los Angeles launched its Clean Truck Program, replacing high-polluting trucks with cleaner vehicles running on alternative fuels such as electricity and LNG. Wunder said the public response to the use of LNG had generally been positive: "With respect to the community, there's been no negative reaction to the LNG trucks or fuelling stations in use at the port. We're still learning about the potential of LNG-fuelled ships, so at this time we do not know whether there would be community opposition."

Los Angeles is also pioneering the WPCI project on carbon footprinting to determine emission sources, track emission trends and help ports to reduce their greenhouse gas emissions.

One of the tools the port has developed is a CO₂ Calculator to help ports estimate their current emission levels and assess reduced emission scenarios. Wunder showcased the pilot version of the calculator in Busan in May, looking at direct and indirect port sources of emissions directly within the control of the port, called Scope 1 and 2.

She told *P&H* that the Port of Los Angeles has also developed a draft Scope 3 calculator, which will expand it to include the emissions associated with tenant operations and equipment, including ships, harbor craft, trucks, cargo handling equipment, locomotives, tenant-owned buildings and electricity use, and port and tenant employee commuting.

"The release date of this calculator will depend on feedback received from the Scope 1 and 2 calculator," she commented. **PH**



LNG ferry pioneer Fjord1 aims to have 12 ferries in operation along the Norwegian coast by the year's end

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The new power generation

Electric onshore power supply can help ports cut air pollution and reduce noise, but is it really climate-friendly and why aren't shipping lines investing in the technology? *Stephen Cousins* reports

n the drive by ports to reduce their environmental impact, many are now turning to onshore power supply (OPS), in which electricity generated by visiting ships' diesel auxiliary engines is replaced by power that has been generated on shore.

By establishing an electrical connection between a vessel and the terminal to provide full operational power during docking periods, ports can substantially reduce the production of such harmful pollutants as nitrogen oxide, sulphur oxide and diesel fine particulate matter, all of which adversely affect the health of the ship's crew and of people working and living in the local area. To a lesser extent, carbon dioxide (CO₂) can also be reduced. Switching to electric power can also help cut noise levels – a major plus for ports in city centres.

New legislation is driving industry interest in the technology. All vessels berthing in European ports for more than two hours must now burn marine gas oil with a sulphur content of less than 0.1% in their auxiliary boilers, or use OPS. Failure to meet this requirement could result in heavy fines imposed by member states. Under the revised Annex VI of Marpol, which comes into force in January 2012, the global limit for sulphur in marine fuel will be cut from 4.5% to 3.5%, and a further reduction to 0.5% is scheduled for 2020.

IAPH has acted on the shoreside power issue through its World Ports Climate Initiative (WPCI). OPS will be a major focus for the ports, and WPCI has set up a website (see end of text) to help guide

Power outlet 6.6kV/11kV

ports through the planning and implementing of OPS in their terminals.

When planning an OPS installation, several parameters need to be considered. Ports must consider the type of traffic they receive and its regularity, the number of hours that vessels are in dock and the fuels that they burn. Consultation is required if the port is to understand the level of power that ship operators are likely to require throughout the year and where in the port they will need to use it. Ports should also work closely with local power providers to determine where they can connect to the grid or the type of electrical infrastructure that will be required to make the connection – in the case of large ports with greater energy needs, a major upgrade may be required.

OPS systems are designed to cater for changing frequency and voltage requirements, said Hugues Berthet, marketing manager at Schneider Electric, whose Shore Connection system is already used at several naval facilities. Network frequencies can vary region-wide or even country-wide, using frequencies of 50Hz or 60Hz. "We must adapt the [landside]

11 11

Ship-to-shore interface... both ports and ships need to invest for OPS to be realised

> Complete onboard system including high-voltage shore connection panel and cable drum

> > Substation (inc 50/60Hz converter)

Shoreside transformer kiosk

frequency for use by ships," he said. "The system may also have to adapt to the level of voltage and frequency used on board the ships themselves – some have 60Hz connections, others use 50Hz."

Low-voltage OPS systems (typically 400–480V) require numerous connection cables, while more recent high-voltage systems (6.6–11kV) are easier to handle, but require an onboard transformer.

Once a port's requirements are finalised, installation of Schneider Electric's Shore Connection system is likely to take about four to five months, said Berthet. It needs little new infrastructure apart from a power connection module on each quay.

Opponents of OPS sometimes question its green credentials, arguing that switching to electricity does not cut CO_2 pollution but merely transfers it from the port area to the location of the power plant that is generating the electricity. In principle, the source of CO_2 pollution is indeed transferred, but the level of CO_2 emissions is also greatly reduced. A 2005 emissions study produced by environmental data company Entec UK found that while average European CO_2 emissions from electricity production are estimated to be about 330g/kWh, CO_2 emissions from auxiliary diesel engines are, on average, about 690–720g/kWh. This indicates that using grid electricity rather than diesel engines reduces CO_2 emissions by more than 50%.

Nevertheless, ports can choose to find as clean an energy source as possible to maximise the environmental benefits. The Port of Gothenburg has a total of six quays fitted with high-voltage OPS modules in three terminals, one of which is powered by a pair of wind turbines in the port.

Stena Line purchases "environmentally labelled" electricity for the OPS systems that service its four car and passenger ferries, said Susann Dutt, manager of sustainability at the Port of Gothenburg. She explained: "The energy supplier guarantees that the same number of green kWh purchased by Stena Line will be supplied to the electrical grid."

Dutt estimated that the two vessels using OPS in Stena's Majnabbe terminal will save about 4,000 tonnes of CO_2 a year and the two vessels at its Masthugget terminal will cut CO₂ by 4,400 tonnes a year.

If ports want this greener technology, how do they persuade shipping lines to get on board with it? Many operators run older vessels that need to be expensively modified, such as by installation of connection sockets, and investing in changes of this kind might seem unnecessary if they call infrequently at OPS ports.

There are signs this attitude is changing, believes Torild Jørgensen, head of environment at the Port of Oslo, where the OPS system went live last month. "New regulations on low-sulphur fuel are changing their mentality because fuel costs are rising fast, so companies are actively discussing the use of [OPS]... As more ports adopt the technology, shippers will start to see more financial incentive. For example, Color Line helped finance Oslo's OPS along [with] the port and the state, and now there are plans to set up another OPS system in Kiel, which it also visits," Jørgensen said.

The Port of Oslo is talking to other ports in the Baltic region about developing OPS facilities for visiting cruise ships, she revealed. "Cruise vessels are much more difficult to accommodate because they visit each port so infrequently and are unlikely to invest if OPS is only available in one or two ports," she pointed out. "In the Baltic we have up to 10 very important cruise destinations and if we can get all of those interested, cruise firms are much more likely to invest."

Ports interested in more information on onshore power should visit the website (below), which details the procedure and cost of implementing OPS and includes tools for calculating emissions. Alternatively, contact Susann Dutt at the Port of Gothenburg. **PH**

More info: onshorepowersupply.org; susann.dutt@portgot.se



OPS from coal-generated electricity

- Ships' auxiliary engines using fuel with 2.7% sulphur
- Ships' auxiliary engines using fuel with 0.1% sulphur
- OPS from the average energy mix in the EU

Onshore power supplied from the average energy mix within the EU scores well on all emissions listed

Action for water

The ports of Los Angeles and Long Beach are developing a water action plan. *P&H* heard more from the supervisor of the Water Resources Group, within the Port of LA's Environmental Management Division

nvironmental stewardship has long been a focus for the Californian ports of Los Angeles (LA) and Long Beach (LB), and in August 2009 at a Board of Harbor Commissioners meeting the two ports agreed to approve the Water Resources Action Plan (WRAP). The plan provides a framework and mechanism for the ports and their tenants to achieve regulatory compliance in a collaborative and cost-effective manner. LA and LB recognised that forthcoming government regulations would require them to have a comprehensive strategy for improving water and sediment quality, and they saw the benefits of adopting a collaborative approach to the challenge. Both ports had existing water and sediment programmes, which were consolidated in the WRAP, and they identified areas where additional measures were required.

Discussions on the need for a water-quality planning document began in 2006, around the time the joint Clean Air Action Plan was being approved and implemented. Kathryn Curtis, Port of LA's environment manager, noted that water, like air, "doesn't recognise municipal boundaries, so it only makes sense for the two ports to work together to continue to improve the water quality in western San Pedro Bay".

WRAP consists of 14 control measures covering land use, on-water use, sediment and watershed issues. Some of the control measures have been developed by the two ports working collaboratively, while on others the ports have worked independently. "In all cases, there has been ongoing co-ordination on all WRAP-related issues," said Curtis. Many of the measures have been completed and others are almost there.

Once finalised, the measures are implemented by the ports and their tenants. "WRAP is intended to be a living document and, as new issues are identified, additional control measures will be developed as necessary," Curtis said. "Also, some of the control measures represented the first step in an iterative process, so additional phases of the same measures will also be developed and included in the WRAP."

Curtis emphasised the importance of involving regulatoryagencies in the development of a programme to achieve fundamental 'buy-in' on implementation of the various programme measures. "We worked with both the US Environmental Protection Agency and the Los Angeles Regional Water Quality Control Board

■ Outreach can identify ways of operating that can result in real water quality improvements

WATER PROGRAMME



The 14 control measures of WRAP

Land-side management

- Operational best management practice (BPM) for tenant operators, terminals, boatyards etc
- Structural BPM
- Design guidance manual
- Stormwater/dust control measures
- Litter control measures
- Public area sweeping programmes
- Remote sites stormwater compliance
- Port-wide stormwater permits

On-water management

- Vessel/marina guidance manuals, including vessel discharges and maintenance
- Treated pilings
- Cathodic protection

Sediment management

- Sediment management guidance, including hot spots and resuspension
- Legacy contamination

Watershed management

- Support of upstream efforts
- Source: Port of LA

Port of Los Angeles at sunrise... the WRAP includes 14 control measures, all of which aim to improve water quality throughout the development of the WRAP and were able to secure their logos on the WRAP cover, signalling their endorsement of the programme."

The WRAP is a flexible programme. As regulatory programmes are developed and evolve – such as Total Maximum Daily Loads (TMDL) and National Pollutant Discharge Elimination System (NPDES), both federal Clean Water Act programmes – WRAP control measures and metrics can be adjusted accordingly.

One element of WRAP is enhanced tenant outreach. Curtis explained: "This outreach can help to identify different ways of operating that take little to no extra time or money, but can result in real water quality improvements." This could include modifications and enhancements to housekeeping practices, such as site sweeping and waste collection, equipment maintenance and storage, and employee training.

The WRAP is an ongoing framework for which it is too soon to quantify the benefits. "Several port tenants participated in the public stakeholder meetings conducted during the preparation of the WRAP, which we encouraged so that nobody was surprised at the end of the process," Curtis said. "Where the tenants have been requested to participate, the port has also extended the offer to assist." She added: "This outreach, and outreach performed during the implementation of several of our control measures, has gone a long way in assuring our tenants that efforts identified through implementation of the WRAP will assist them in complying with regulations and improving the quality of harbor water and sediment."

Two years have passed and changes by the tenants can already been seen. They include employing operational best management practices, changing purchasing policies and implementing dust and erosion control measures. However, Curtis believes "the real effect of the WRAP will be demonstrated through the TMDL compliance process over the next 10–20 years". She noted that the harbor has seen a dramatic improvement in water quality since the Clean Water Act and NPDES programme were instituted. Also, maintenance and capital dredging conducted by the ports over the past few decades has resulted in the removal of a large quantity of contaminated sediment from the harbor environment.

Curtis stressed the need to encourage stakeholder involvement so that the interests of tenants and the public can be addressed, resulting in more commitment to the goals of the programme. "Finally," she said, "other ports should understand that there will be some costs to implement the plan, but these proactive costs are well worth the benefits, not just in being compliant with regulations, but in improving the environment and allowing the port to grow green." PH

More info: portoflosangeles.org/environment/wrap.asp



Piece together a PCS

Those with decades of experience of port community systems tell *P&H* that the best networks result from getting the whole port community involved in the process

There is no shortcut to creating an effective and robust port community system (PCS). False starts often occur when ports and national governments fail to tackle the project as a 'change management' process that involves all port stakeholders and is based on their administrative and business processes.

"PCS is not just an IT project," said Pascal Ollivier, corporate development director of leading European PCS operator Soget. "Some ports have tried unsuccessfully to develop portwide systems for 20 years because the projects were managed by IT directors as EDI [electronic data interchange] projects rather than being tackled as a change management project by the whole port," he told *P&H*.

"We've held talks with a number of ports about how to set up a port community system, but we warned them that just copying the system of another port or country doesn't work. Each port system has to be tuned to local regulations and business processes," added Paul Swaak, strategy and business development director for Dutch PCS Portbase.

IAPH has been playing a big role in PCS development. The association's Committee on Trade Facilitation and Port Community Systems held its most recent meeting at May's World Ports Conference in Busan. The key presentation made to this committee session was a report on the findings of the PCS Benchmarking Survey. With the support of IAPH, committee experts visited 13 PCSs in nine countries to identify the best projects, show best practices and update IAPH members on the most appropriate options. As well as PCSs in Europe, where the most advanced systems are located, the team visited projects in Japan, South Korea and Israel.

One of the main conclusions of the survey was the need to involve all the stakeholders in a port's logistics operation. "The main success factor is the capacity of the [system's] operators to understand the daily logistics processes... Working on the process and having a strategic view of system requirements helps the operators to design a system 'by the trade and for the trade," the survey reported.

During the same session, Total Soft Bank – a Koreanbased logistics solution company that has developed its own PCS software called Port Logistics Unifying System (PLUS) – gave a presentation that looked at some of the change management issues involved in moving from single-company business processes to a port-wide system used by everyone. PLUS manager Chad Lee showed that this change has implications at every level, from port users up through port managers to government bodies including customs. Jin Lee, from TSB's marketing and sales team, told *Ports & Harbors:* "TSB provides a consulting service that studies and analyses the operational model and business model



under the legal frame for optimised solutions."

PLUS has been adapted for use by several large ports including Gothenburg in Sweden and Johor in Malaysia; it was also one of the main building blocks for Busan Port Authority's BPA-Net, which was launched last year.

The BPA-Net is a 'one-stop service' for all liners and operators and aims to integrate all port-related cargo and logistics-related information. Busan's PCS will eventually provide government-to-business, businessto-business and government-to-government services for port users and government and port authority offices, speeding up cargo movements at the port.

This electronic overhaul of the port's current operating systems will complement the South Korean government's successful e-government framework. Phase one of the overall project, which will include the establishment of the BPA-Net integrated system and will cost around 3.3Bn won (\$3.1M), is expected to be in operation towards the end of this year.

The project includes the tagging of all terminal operator gates and trucks with radio frequency identification devices. Phases two and three of the upgrade of Busan Port's online services will begin from



2012. Next year, BPA-Net will develop a single channel for its tug and pilotage services, real-time information delivery and offer business-to-business support.

A byproduct of its expansion of shipping and port data services will be the creation of a green index that monitors energy use and carbon emissions, helping the port to create a low-carbon, eco-friendly environment. Hee-Soo Park, BPA's port information technology director, told Busan conference delegates that he believed BPA-Net would complete its rollout of services by the end of 2013.

There has been a huge upsurge of interest in PCS development worldwide, so the IAPH committee has proposed that a more extensive benchmarking survey be carried out by 2013, looking in particular at African and South American ports. It is intended that the survey's findings will be presented at a meeting of the committee at the 2013 World Ports Conference in Los Angeles. Other aspects of research will focus on establishing international PCS standards and increasing interoperability (see page 36).

Systems currently under development include Kenya's National Single Window System (NSWS), a government-sponsored scheme creating an electronic platform on which trade-related documents can be submitted. According to the NSWS website, Kenya Ports Authority completed the initial rollout in July; the second phase, including integrated risk management and cargo tracking information, is expected to be launched in the middle of next year.

Kenya Shippers Council has welcomed the launch of NSWS because, it said, continued use of paperbased accounting methods is adversely affecting the country's competitiveness. "Trade-related procedures in Kenya remain lengthy, cumbersome and costly," the council lamented in a position paper, and added: "Traders will benefit from faster clearance and release times [under NSWS]."

Two countries that the IAPH committee is keen to visit as part of its wider benchmarking survey are India and China. India already has a nationwide PCS in operation that provides a single interface for port community members at 12 major ports and 25 minor ports, which handle about 90% of India's foreign trade. A centralised database accessed through an e-commerce portal allows authorities to track and trace cargo; it also improves visibility for the maritime community.

China has yet to create a national PCS, but there are initiatives to create local community systems at several ports. Earlier this year, for example, SOGET joined forces with China's Ministry of Commerce to launch the Cargo Visibility Service (CVS), which allows operators to track cargo in most major Chinese ports and supply chains. The new service helps cargo operators plan the processing and distribution of goods, accelerate their movements and improve productivity gains and returns on investment. CVS is already in operation in major Chinese ports including Shanghai, Guangzhou, Qingdao, Dalian, Hong Kong, Ningbo and Tianjin. **PH**

More info: www.iaphworldports.org; www.pcbs.co.ke; sogetccs.com; www.tsb.co.kr



A single national window?

The technology required for interoperability between PCSs is there. The next challenge is convincing stakeholders to link up, reports *P&H*

> Port community systems (PCSs) are multiplying across the globe and European PCS operators are planning how these networks will look by the end of the decade. The European Union's E-maritime initiative is aimed at promoting interoperability between the systems of all European waterborne transport stakeholders both at sea and inland.

> In May, Antwerp became the latest port in northern Europe to launch a PCS. While the big north European ports have made major strides in introducing IT connectivity, smaller ports, many of them in the Mediterranean region, are not yet using electronic data transmission. Shipping companies still have to enter the same data repeatedly and often manually, resulting in duplication of work and errors.

> Governments and global shippers see great advantages in improved interoperability between PCSs. Soget's Pascal Ollivier is also chairman of the European Port Community Systems Association, launched in June 2011. For the first time, he told *P&H*, global shippers including freight forwarders and major shipping lines, will have a single point of contact for a dialogue about future interconnectivity.

> "International lines and forwarders think globally and would ideally like to use one IT trading system, yet each of the 27 countries of the European Union does business differently. A single window for all is still a dream, but we need to start a dialogue with these stakeholders to see how we can work together to harmonise business procedures," said Ollivier.

Apart from technology, there also needs to be

a dialogue about a common legal framework, to overcome some of the cross-border issues about exchanging data and business confidentiality, he said.

Paul Swaak, of Dutch PCS Portbase, envisages European PCSs eventually being linked together to permit a "European overview" in the public domain. "We want to ensure, finally, that the format of a PCS is a straightforward step into a single-window environment where all notifications and data of cargo can be transported through a PCS via a national government single window. We also want to couple Portbase with other systems to give a European overview," he told P&H. He expects that to happen by the end of this decade, but, rather than creating a European 'super-PCS', he feels that a network modelled on the internet will work best. "We are against the creation of an EU port community system; we believe it's not practical from a technical point of view and also if you put all the PCSs together, you're already there."

The internet-type system that Swaak envisages would be interlinked to allow an official body to view data on a particular transport and extracting it via web services under certain private security measures and conditions. He also wants to move from port-focused systems to what he calls open "business community systems". He explained: "From a closed platform which only members can use, Portbase wants to create an open platform in which we can connect with the platforms of third parties – such as traffic management systems and government bodies such as customs.

"The data of our system is also vital to hinterland transport to enable it to preplan and pre-stack cargo at terminals and that's where the main value is," he added. Portbase also plans to invest much more in the business-to-business domain, enabling all the logistic partners in the supply chain to use the data to support their own optimisation. **PH**

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Maintenance modelling

A new system, trialled for the first time at a port, could streamline cumbersome and expensive maintenance planning, *P&H* reports

Information obtained by sample testing can be incorporated in to the Simeo-Port software Grand Port Maritime du Havre in France is responsible for monitoring and maintaining about 400 civil engineering structures and must ensure that these structures meet budgetary and safety objectives. The structures vary in age, intensity of use, function and accessibility, and many are located underwater or underground, making visual inspection difficult. The port's responsibility for these structures includes a considerable investment of time and money. The Port of Le Havre set about rationalising and organising its maintenance programme and, after a call for tenders in 2006, chose as its partner the risk management solutions company Oxand. The company carried out trials at Le Havre and together they developed the Simeo-Port system.

The system was originally developed for the Swiss railways, Paul Scherrer, technical and project manager at Le Havre, told P&H. Using Le Havre as a model, Oxand adapted the system for ports. Simeo-Port is a technology-based system that predicts the future maintenance requirements of individual structures - quay walls and breakwaters, for example - from information that has been entered into the system, such as the structure's age, material and position within the port. Once Simeo-Port was up and running Le Havre found it a very useful tool. According to Christophe Gauthier, head of the port's Infrastructure Engineering and Works Department, it is used every year for the programme of inspection, chiefly to ascertain the integrity of the guays, breakwaters and locks infrastructure. This information is helpful when creating a masterplan setting out the likely maintenance needs of these structures over the year and even the next few years.

The port's use of Simeo-Port has evolved. The IT element is just one part of the system and Simeo-Port

is now seen as a management system, said Scherrer. It has helped save money, he reported, because it enables the port "to put maintenance on the right structure and not to overdo maintenance on the wrong structure".

With Simeo-Port, said Jérôme Boero a consultant engineer at Oxand, "the budget is used in an optimal way in the short term that allows control [of] the longterm maintenance budget".

For example, it can define short to long-term budget strategies from a capex (investment for future growth) and opex (operating costs) perspective, Bruno Gérard, Oxand's MD, told *P&H*. It can also forecast human resource requirements and simulate changes to risk levels to gauge the outcomes if maintenance is postponed or cancelled. The system offers a "quantitative way of fixing the priorities", with priority maintenance requirements marked in red on the system and less urgent items marked green.

In the same way, it can help ports make environmental choices. You can identify the specific issues with a structure, said Gérard – for example, cost, safety, commercial implications and potential environmental impact. "If you look at the issues [highlighted] in red, you can see whether they are financial or environmental," he said. Simeo-Port can be used to predict the ageing process and integrity of pipes, which can be important considerations when offloading hazardous products. As Gérard noted, the consequences of environmental incidents "can be very high, cost-wise".

The system can be used to extend the lifecycle of the structures within a port for as long as possible. A structure's integrity can be evaluated and a decision made about the need for either maintenance or replacement. The more you delay investment in a structure, the more you can reduce your carbon emissions, Gérard asserted.

Simeo-Port initially requires the port to input information about its structures so that the system can make informed and specific maintenance predictions. It also incorporates common data accumulated by Oxand on structure defects, ageing kinetics, operations and human and financial resources. "Implementation of the system takes six months to one year. That depends on the size of the port and on the degree of maturity of the owner in terms of risk and asset management. Once the implementation of the system has been made, its updating is made as one goes along according to the information obtained from the actions of maintenance realised – inspection, non-destructive tests, current maintenance, repair and so on," said Boero.

By allowing a maintenance plan to be put in place in less than a year, Simeo-Port can "really accelerate the decision-making process for the client", said Gérard. Once this initial six-month investment has been made, the system will predict the future maintenance needs and does away with further lengthy traditional inspections. In addition, the database increases every time Oxand takes on a client, said Gérard.

The system would suit a port company that oversees maintenance at several facilities, Gérard suggested, because "they would really optimise the global maintenance budget". It offers a referential system so that you can compare ports – "a big solution to optimise costs" – and it can identify where development or maintenance can be delayed in order to allow investment to be switched to another port. It therefore provides a comprehensive overview of all a company's facilities – and without that, queried Gérard, "how can you prioritise?".

Ports don't have to start preparing for their next 20year maintenance masterplan by undertaking a costly and time-consuming traditional survey of the facilities, involving divers. "Most ports have a huge amount of data," Gérard explained, "and if you can benchmark with other ports you can complete the data you don't have." This is one of the advantages of using a riskbased approach, which is able to analyse an individual port's requirements, he explained.

Many ports have a big portfolio of assets but not enough time to define performance criteria and decide the limits of acceptability. Simeo-Port helps them identify a vision, he suggested, perhaps along the lines of: "If you do nothing this is how you will be in 10, 20 and 30 years." Then you can then define your strategy and predict the behaviour of the port in future.

Scherrer acknowledged the benefits for Le Havre: not only does Simeo-Port save money, but it also adds security because it removes the risk of overlooking a structure that is in bad condition. **PH**

Opposite: the simulation and prediction capabilities of Simeo-Port could reduce visual inspections

Right: Le Havre port authority is responsible for more than 400 structures

Photo: Oxand







Antwerp has joined the ESI and is offering incentives for ships to reduce their emissions

Emissions index gathers momentum

The adoption by ports of the Environmental Ship Index (ESI) is gathering momentum worldwide. Antwerp became the latest to announce an incentive scheme to encourage greener ships at Belgium's largest port from 1 July, and other European and US ports are expected to join the

programme soon. In a separate development, the port of Hamburg, Germany, also announced on 1 July that it was launching its ESI programme.

The ESI – an element of the World Ports Climate Initiative developed under the auspices of IAPH - rewards ships that reduce

air emissions to below the level required by current IMO standards. The index is based on the degree to which a ship cuts its release of nitrogen oxide (NOx), sulphur oxide (SOx) and greenhouse gases.

Antwerp Port Authority said that since mid-year it had evaluated ships using the index, rating ships

on a scale ranging from 0 to 100. All ships scoring 31 or more would qualify for a10% discount on port fees. "The port authority will guarantee this discount for at least three years, thereby offering continuity for shipping companies that invest in improving the ESI score of their ships," the port authority said. The discounts would be calculated every three months on the basis of ESI updates, with discounts paid retrospectively at the end of each quarter.

At the IAPH conference in Busan, Port of Los Angeles, along with the ports of Bremen and Hamburg, expressed an interest in the process of developing ESI initiatives. Since the conference, two more German ports, Kiel and Wilhemshaven, have announced their participation. The ports of Amsterdam, Rotterdam and Oslo already have programmes up and running and have been offering ESI discounts since the beginning of the year.

The index is intended to promote cleaner ships, but can also be used by shippers and shipowners for their own promotions. The programme is completely voluntary, but WPCI hopes that the global port community will take on more responsibility for improving the maritime and port environment.

EMSA puts its STCW information on the web

The European Maritime Safety Agency (EMSA) has made its STCW [Standards of Training] Certification and Watchkeeping] Information System available online since 31 July. STCW-IS is intended to provide reliable information on national maritime administrations and training and education institutions in the EU. It gives

Notable numbers

access to maritime administrations, maritime education and training institutions and certification systems, EU-approved programmes and courses, and career progression schemes in EU member states.

The system draws on information from countries, administrations and training

institutions, including the parties to the STCW Convention recognised by each country; national legislation through which the STCW Convention was implemented; details of the administration's quality management system; contact details and the structure of a country's maritime training institutions and programmes.

IMO elects new secretary general

Koji Sekimizu has been elected secretary-general of the International Maritime Organization and, if approved, will take over from Efthimios Mitropoulos on 1 January 2012. The 58-year-old from Japan will hold the post for an initial term of four years. He is director of IMO's Maritime Safety Division.

Sekimizu was voted in at the 106th session of the IMO Council, which sat at the end of June. The IMO Assembly must formally approve his appointment in November, when it will hold a secret ballot with two choices – to accept or reject the council's selection. It is considered highly unlikely that the assembly will overturn the council's decision.

The secretary-general-elect has pledged to change the way IMO's secretariat functions. "We cannot expect [a] continuous increase of the budget as has been the case of the past," he warned in his mission statement, so "to meet future challenges, I will conduct [a] major review over all aspects of activities of the secretariat."

In his statement Sekimizu revealed that his mission includes:

■ Initiatives on greenhouse gas emissions, piracy, provision of quality seafarers, member states' audit scheme and goal-based standards. He pledged: "I will exercise strong leadership to tackle these challenging issues."

Developing countries "will play a more significant role in the maritime society".

"Technical co-operation programmes... need to be further enhanced and promoted."

"I will put my utmost efforts to strengthen and sustain the financial basis of the World Maritime University."

Sekimizu studied marine engineering and naval architecture and joined the Ministry of Transport of Japan in



G I will exercise strong leadership to tackle these challenges

Koji Sekimizu IMO SG-elect

1977. His relationship with IMO began in 1980 when he started attending IMO meetings. He joined the organisation's secretariat in 1989, initially as technical officer in the Sub-Division for Technology, Maritime Safety Division, and became head of the Technology Section in 1992. He moved to become senior deputy director of the Marine Environment Division in 1997 and then director of that division in 2000. He has been in his current position since 2004.

Other candidates for the post of secretary-general were Lee Sik Chai of the Republic of Korea, Andreas Chrysostomou of Cyprus, Neil Frank Ferrer of the Philippines, Jeffrey Lantz of the USA and Esteban Pacha Vicente of Spain. *More info*:

http://tinyurl.com/Sekimizu

EU deal paves way for pirates to stand trial in Mauritius

The fightback against Somali piracy made progress in mid-July with the signing of a transfer agreement between Mauritius and the European Union. This will allow the transfer to Mauritius of Somali citizens suspected of piracy who are caught on the high seas by the EU Navfor Atalanta anti-piracy force. The suspects can then be tried, sentenced and imprisoned on the island, at least until they can be transferred to prisons in Somalia. The agreement with Mauritius follows a similar accord with Seychelles.

The deal was concluded on 14 July by Pravind Jugnauth, vice prime minister of Mauritius, and Alessandro Mariani, from the European Commission. It lays down conditions for the treatment of piracy suspects in accordance with international law, requiring prisoners not to be tortured or subjected to cruel, inhumane or degrading treatment, nor subject to capital punishment. As part of the transfer deal, Mauritius is receiving \leq 3M in budget support on top of the

EU's €43.5M funding for the country's anti-piracy efforts. Part will be used for a special court and prison for piracy suspects, and construction was set to start at Petit Verger, on the west coast, on 22 August.

The EU considers Mauritius a trusted partner in its antipiracy initiatives because of its political stability and European-style legal system. However, the UN Security Council stated at a meeting on 21 June that it favours trying suspects at the international court at Arusha, Tanzania.

The longer-term aim is to increase court and prison capacity within Somalia itself, as outlined in the 25-point plan developed by UN special adviser on piracy Jack Lang. Seychelles has signed transfer agreements with the Transitional Federal Government of Somalia and the authorities in Somaliland and Puntland that allows convicted pirates in Seychelles prisons to be transferred to their homeland to serve the remainder of their sentences. It has so far proved easier to catch pirates than to convict them because of gaps in countries' legal systems. To address this, Mauritius is developing a Piracy and Maritime Violence Bill, which will replace sections of its Merchant Shipping Act by year's end. In 2007, the Comité Maritime International submitted to IMO its Draft Guidelines on Maritime Criminal Acts – in effect, a template to help countries update their anti-piracy laws – but the Legal Committee took no further action. Now the Contact Group on Piracy off the Coast of Somalia is creating a 'legal toolbox' to much the same end.

A further initiative is the Djibouti Regional Training Centre, for which IMO and the Republic of Djibouti signed an MoU in May; construction has already started. Funded by IMO's Djibouti Code Trust Fund and the EU, the centre's training programme will focus on strengthening the region's ability to prosecute pirates through courses for local coastguards, maritime administrators and state legal officials.

a year capacity that will be available at Contecar, Colombia, by 2017 the numb ships atta pirates in half of 20 according



Significant decision... the July MEPC meeting at IMO where the the index was adopted

Energy efficiency index adopted at IMO

Shipping can lay claim to having the only global, legally binding carbon reduction scheme. The IMO Marine Environment Protection Committee (MEPC) adopted amendments to Marpol Annex VI at its 62nd session in July. The adoption will make mandatory the Energy Efficiency Design Index (EEDI) for new ships and the Ship Energy Efficiency Management Plan (SEEMP) for existing ships, with entry into force expected on 1 January 2013. Under EEDI regulations, ships built between 2015 and 2019 will need to improve their efficiency by 10%, rising to 20% between 2020 and 2024, and by 30% for ships delivered after 2024.

Concessions have been given to

developing countries. Delegations led by China, Brazil, Saudi Arabia and South Africa secured a waiver for new ships flagged in developing countries, which will delay the application of the EEDI in developing states for six and a half years. Also included is a regulation on encouraging technical co-operation and transfer of technology, which requires national administrations to provide support directly, or through the IMO, to developing states that request technical assistance in order for them to meet the EEDI requirements.

Secretary general of the International Chamber of Shipping Peter Hinchliffe told *P&H* the amendments were "very significant and very positive" steps in both the short and long term. "This will allow the IMO to deliver an excellent message to the UNFCCC [UN Framework Convention on Climate Change] that it is serious on emissions reductions," he said. "It also opens the door for IMO to examine CO₂ emissions reduction for ships in terms of market-based measures."

Environmental lobbyists welcomed the new rules, but cautioned that the waiver would mean that shipping emissions would begin to fall only after 2019 and warned of "a significant danger" that shipowners would elect to flag their new ships in countries that allowed them to postpone implementation.

As well as the EEDI, the committee adopted the revised Marpol Annex V regulation addressing the prevention of pollution by garbage from ships, which is expected to enter into force on 1 January 2013. The most significant change comes in a move away from a system that listed what could not be dumped, to one that contains a general prohibition on dumping with limited exceptions. Discharges permitted in certain circumstances include food wastes, cargo residues and water containing cleaning agents or additives that are not harmful to the marine environment.

Little progress was made towards ratifying the Ballast Water

Notable numbers

the investment that Port of Miami is making in new infrastructure



the percentage of insurance claims at TT Club that are attributable to quay cranes Management Convention, although work continued on approvals for treatment systems by the Joint Group of Experts on the Scientific Aspects of Marine **Environmental Protection** (GESAMP) working group.

Final approval was granted to two more systems and basic approval to another seven systems. The MEPC opened the door for submissions from systems employing alternative methods of controlling of invasive species, such as flowthrough 'ballast-free' ship designs. The committee also adopted guidelines on biofouling, addressing the prevention of transfer of invasive aquatic species from algae and molluscs adhering to ships' hulls.

Waters adjacent to the coasts of Puerto Rico and the US Virgin Islands were designated as an emission control area (ECA), limiting the permissible levels of ships' emissions of nitrogen and sulphur oxides and particulate matter. This followed final approval of Marpol Annex VI at MEPC 61. The amendments are expected to enter into force on 1 January 2013.

The IMO then turned its attention to black carbon, a particulate matter produced by incomplete combustion of fuel oil, which affects human health and is implicated in climate change. MEPC agreed a work plan on the threat to the Arctic region from black carbon emissions, instructing the Subcommittee on Bulk Liquids and Gases to develop a definition for emissions, consider the most appropriate measurement methods and investigate appropriate control measures. It is due to report back to MEPC 65 in 2014. More info: www.imo.org

Piracy figures up, reports IMB

The International Maritime Bureau (IMB) is seeing a growing number of piracy attacks being reported to its centre, according to its latest report issued on 14 July. Pirates attacked 266 ships in the first half of the year, up from 196 ships a year earlier, it revealed. IMB attributed 163 of the attacks to Somali pirates and noted that 361 seafarers were taken hostage during the period, with three injured and seven killed. As of 12 August, Somali pirates were holding 377 seafarers from 19 hijacked ships.

Somali pirates seized 21 ships in the first half of 2011against 27 in the same period last year. Of the current Somali piracy situation, IMB commented: "Attacks have increased, but successful hijackings have reduced due to the efforts and actions by the naval forces and the hardening and other preventative measures used by the merchant vessels."

The bureau also noted that seas off west Africa witnessed "a surge in particularly violent and highly organised attacks" - 12 tankers have been robbed off Benin since March, whereas no attacks were reported in the area last year. In July, for example, the 108,958dwt Italian products tanker Anema e Core, with 23 crew members aboard, was boarded by robbers off Benin, according to local officials guoted by Reuters. This came only a week after Greek oil tanker Aegean Star was seized for two days. On 1 August, the Joint War Committee of London insurers LMA and IUA designated Benin's waters a war risk zone.

Pirate attacks and armed robberies of ships reported to Asian piracy watchdog ReCAAP



Placing armed guards on board ships is the industry's response to the persistence of piracy

Information Sharing Centre grew by 14% year on year in the first six months. The Singapore-based organisation said on 26 July that there were 82 incidents reported in the first half of 2011, up from 72 in the same period last year.

The continuing problem of piracy worldwide is causing many in the industry to revisit the debate about carrying armed guards on board. Speaking at a reception in London on 18 July, UK shipping minister Mike Penning described piracy as "the scourge of the oceans" and said it had changed its character over the past five years - perhaps even in the past 12 months.

The UK is the latest country to give its backing to legalising armed quards on ships under its flag. "Legislation will have to be changed in this country so that we can protect our seafarers around the world," he declared. "I don't want to say that this is the panacea," he said, but added that he knew of no ship carrying armed guards being hijacked.

Other countries, including Thailand and India, are also

considering how best to deploy armed guards on ships.

COSCO Shipping is understood to have become the latest company to use armed guards to protect ships in areas at risk of piracy. Hong Kong's South China Morning Post newspaper reported in July that it will spend \$12M on armed guards and other antipiracy measures this year to protect ships from Somali piracy.

Similarly, Danish product tanker specialist Torm told Ports & Harbors that the company has "no other option" but to deploy armed guards in areas at high risk of piracy off Africa. Its CEO, Jacob Meldgaard, explained that the company did not feel confident crossing piracy high risk zones without armed guards.

Meldgaard added that Torm had received backing from the Danish Shipowners' Association, while the governments of Norway and Singapore, Torm's home countries, had been co-operative because "they can understand the dilemma the company is in". More info: www.icc-ccs.org/ piracy-reporting-centre

60,000 dredged material removed from the basin at Mogad-ishu, Somalia

\$16Bn intends to invest to increase capacity and efficiency at seven of its ports

I<mark>A</mark>PH INFO

Welcome to Antwerp in December

Antwerp Port Authority is looking forward to welcoming members to its port city on 7 and 8 December. The Belgian meeting will offer the region's professionals a chance to exchange views and discuss issues affecting Africa and Europe, including updates on the IAPH World Ports Climate Initiative (WPCI).

"We are very pleased to be hosting the meeting," the port authority told *Ports & Harbors*, and it is "currently working very hard to create a programme that will be of interest to all members".

The port authority is a member of WPCI and was one of the first ports to implement the Environmental Ship Index since its launch in November last year. The authority noted in a statement: "The new international standard is a useful instrument for a port authority to promote investment in more environment-friendly ships". It explained that it already uses low-sulphur on vessels in its own fleet. Port of Antwerp has also added connection points for onshore power supply (OPS) within the port — and OPS is another project within the initiative.

Antwerp is the second-largest port in Europe and has benefited from the deepening of the Westerschelde, an estuary of the River Scheldt. It is now able to receive large container ships of more than 10,000teu as well as Capesize vessels. On 17 July it received *MG Courage* from Richard's Bay, South Africa, which offloaded a small percentage of its 176,487t of steam coal intended for the German market. Floating cranes and barges met the vessel at the Everingen anchorage, near Terneuzen, in the Netherlands, so that the cargo could be transported to the hinterland.

A visit to Antwerp does not just have to be about business. It is the secondlargest city in Belgium and is full of wonderful architecture, cobbled roads, history and good cuisine.

The meeting is not limited to members in the Africa/Europe region – professionals from acrosss the IAPH membership are also encouraged to attend. The programme and details of how to register will be available soon at www.iaphworldports.org.



David Padman is now acting GM at Port Klang, Malaysia

New appointments in member ports

It's been a busy two months within some IAPH member ports, with members taking on new positions and areas of responsibility. Captain David Padman, deputy general manager at Port Klang, Malaysia, and chair of the Port Environment Committee, has been promoted to acting general manager. He started the role on 6 July, replacing general manager Kee Lian Yong, who completed his two-year tenure on 5 July.

On 27 June Yoshifumi Kawabata was appointed president of Osaka Port Corporation, Japan. He previously worked in the underwriting section of Nomura Securities. Osaka Port Corp was privatised in April this year and, said the port in a statement, it is anticipated that Kawabata will "promote efficient terminal operation and management integration with Kobe Port Terminal Corporation". Also at Osaka Port Corp, Ryohei Teramoto was appointed executive vicepresident and Taizo Kajihara managing director.

Four US member ports reported movement within their staffs. Alec Poitevint was re-elected to the board of directors of the Georgia Ports Authority to serve a second term as chairman. Other members of the board elected to one-year offices include Robert Jepson (vice-chairman) and Roy Fickling (secretary and treasurer). Susan Anderson Wise was elected president of the Long Beach Board of Harbor Commissioners on Monday on 27 June. She succeeded commissioner Nick Sramek on 1 July.

In Tacoma, Dakota Chamberlain has been appointed as engineering director at the port in Washington state. For the past 15 years he was director of seaport management at Port of Seattle. Before this, he worked for the Federal Aviation Administration.

Meanwhile, at the Port of Oakland, California, three new officers have been approved to serve on the board of the Port Commissioners. They are: Pamela Calloway, principal of law firm Calloway and Associates; Gilda Gonzales, chief executive officer of Oakland's Community Development Corporation; and James Head, vice-president of programs at the San Francisco Foundation. The board's main role is to oversee the use of income from the port's properties.

In the Netherlands, Wouter van Dijk joined Port of Rotterdam Authority as head of logistics in the Containers, Breakbulk and Logistics Department. He took up the post on 1 August. Previously, van Dijk was director of rail operator Optimodal Nederland.

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Government ports: 19



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IAPH INFO

Dates for your diary

A selection of forthcoming maritime courses and conferences

September

11-15	AAPA 100th Annual Convention (incorporating one- day IAPH Regional Meeting, Americas region) – Seattle, USA www.aapa2011.org
13-16	Smart Rivers 2011 Congress – New Orleans, USA http://smart11.pianc.us
14–15	Green Port Congress – Hamburg, Germany www.greenport.com/congress
20–21	Sixth Annual Canada Maritime Conference – Montreal, Canada <i>www.joc.com/events</i>
20-23	NEVA 2011 – Saint Petersburg, Russia http://neva.transtec-neva.com
21-22	Ninth Intermodal Africa – Casablanca, Morocco www.transportevents.com
25–27	TOC Middle East – Dubai, UAE www.tocevents-me.com
26–28	Coollogistics – Antwerp, Belgium www.coollogisticsconference.com
29–1 Oct	INMEX India 2011 — Mumbai, India www.inmexindia.com

October

5 onwards	Diploma in Terminal Managament – distance learning www.ibcglobalacademy.com/tm
16–21	FIATA World Congress 2011 – Cairo, Egypt www.fiata2011.org
17–19	WMU International Conference on Piracy at Sea – Malmö, Sweden http://icopas2011.wmu.se
18 onwards	Diploma in Port Management – distance learning www.informaglobalevents.com
24–28	Seminar on Dredging and Reclamation – Singapore <i>www.iadc-dredging.com</i>
26–27	Seventh Trans Middle East 2011 – Abu Dhabi, UAE
Novem	Der

	www.breakbulkevents.com
	Bremen, Germany
2–3	Breakbulk Africa Transport Congress –

Port Engineering – Antwerp, Belgium 7-18 www.portofantwerp.com/apec

Technical reports

IAPH is pleased to announce that two reports compiled by its technical committees were published in July.

The first of these details the outcomes of the Port Community System Benchmark Survey by the Trade Facilitation and PCS Committee. Members of that committee conducted the project, which was funded by IAPH. Its aim was to share best practices and experiences on PCS at IAPH ports around the world. Drawing on results of a survey carried out over the course of last year, the report contains various examples of PCS projects worldwide (see page 34).

The second report is entitled Seaports and climate change - an analysis of adaptation measures. It was produced by the Port Planning and Development Committee, headed by chairman Wolfgang Hurtienne and the Hamburg Port Authority. The report estimates and assesses the impact of climate change on ports and considers a range of adaptation measures that ports can adopt to protect their infrastructure against it. Both reports are available online at www.iaphworldports.org/library.aspx

SG hails Colombo event

Colombo, Sri Lanka, is to be the setting for the IAPH Asia and Oceania Regional Meeting in March 2012. In early August, SG Naruse visited the Sri Lanka Ports Authority and took part in a press conference to raise the profile of the event (see Comment, p3).

Naruse highlighted the role that containerised cargo plays in the global economy: 530M teu was handled in 2010, about 14 times more than 30 years ago. The SG quoted Drewry's estimated container growth rates of 6-8% a year and noted 2009's fall in box volumes - the first in 60 years.

He also looked in detail at the challenges facing global ports today, including safety, security

and environment, highlighting the Environment Committee's work on air emissions, especially through WPCI, and the resolution on overweight containers agreed at May's World Ports Conference.

The SG took the opportunity to promote the benefits of IAPH membership, including the annual conferences and regional meetings at which members can share best practices, the work of the technical committees and IAPH's role in tackling climate change, among other issues.

Details of the meeting, open to all members and planned for 8-9 March 2012, will be available soon on the IAPH website.

More info: www.iaphworldports.org

Membership notes

The IAPH Secretariat is pleased to announce that the following member has joined

Associate member

Dr Masahiko Furuichi

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	Japan International Cooperation Agency (JICA)



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Ports & Maritime Conference 27 - 30 November 2011, Swakopmund, Namibia

Ports & Logistics A Vision for Future Integration

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www.pmaesa.org/apmc2011



Photo: APC

✓ We have had to determine policy, establish procedures and hire and train employees

From public to private

Ashdod Port Company's VP for engineering and logistics and chair of IAPH's Port Operations and Logistics Committee, **Yossi Bassan**, explains the port's plans for the future

Ashdod Port Company (APC) came about in February 2005, having previously been part of Israel Ports Authority, the entity responsible for all of the activities at Israel's three ports. APC is a government-owned company, which is to be fully privatised within 15 years. All three ports are operating companies and compete for trade accordingly.

Today, APC performs all of the marine and operational activities in the Ashdod port area. When the company was in its infancy we had to learn about IT, engineering, planning, research and development and purchasing, functions that previously were carried out by the ports authority. We have had to determine policy, establish procedures and hire and train employees. This presented some challenges initially, but, six years on, results show that learning these new disciplines has proved beneficial to the port. Cargo traffic has increased dramatically, and the share of Ashdod Port against Israel's overall import and export figures has been high in comparison with previous years.

APC has adopted a customer-focused strategy as it develops into a commercially oriented company. The port's new container terminal, Eitan Terminal, has introduced improved operating techniques together with sophisticated IT systems. Several commercial agreements with shipping lines have been signed and an allocation system for container vessels to berth is operating successfully. All port tariffs have been updated based on economic and commercial principles.

To serve customers better, the company has purchased brand-new operating equipment, including ship-to-shore cranes. We expanded the port boundaries to allow for an increase in activity. Many customers now operate out of a modern logistics park built in the port's neighbourhood. Gate equipment and procedures have been updated and roads to the port are being updated to ensure easier access.

It is part of APC's strategy to develop the port within the regulatory requirements for air pollution and sea contamination. Actions have been taken to avoid spillages and bulk commodities falling into the water, including the purchase of two continuous ship unloaders for grain handling. Good relations with the community have been established and the port is taking a leading role in marine education in the city of Ashdod.

So what's next for APC? Looking forward, we want to fulfill our vision of becoming the leading port in Israel and one of the most advanced on the Mediterranean Sea.

We hope to share our experiences with, and learn from, our IAPH colleagues in May next year when Israel Ports Development and Assets Co. hosts the IAPH Mid-term Conference, during which we look forward to welcoming you to Ashdod port. INH

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The supporting services of the dredging, civil and environmental division enable Jan De Nul Group to perform large-scale projects to its clients' satisfaction, whether this concerns a Palm Island in Dubai, a new port facility in Australia or the construction of the new locks in the Panama Canal.



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