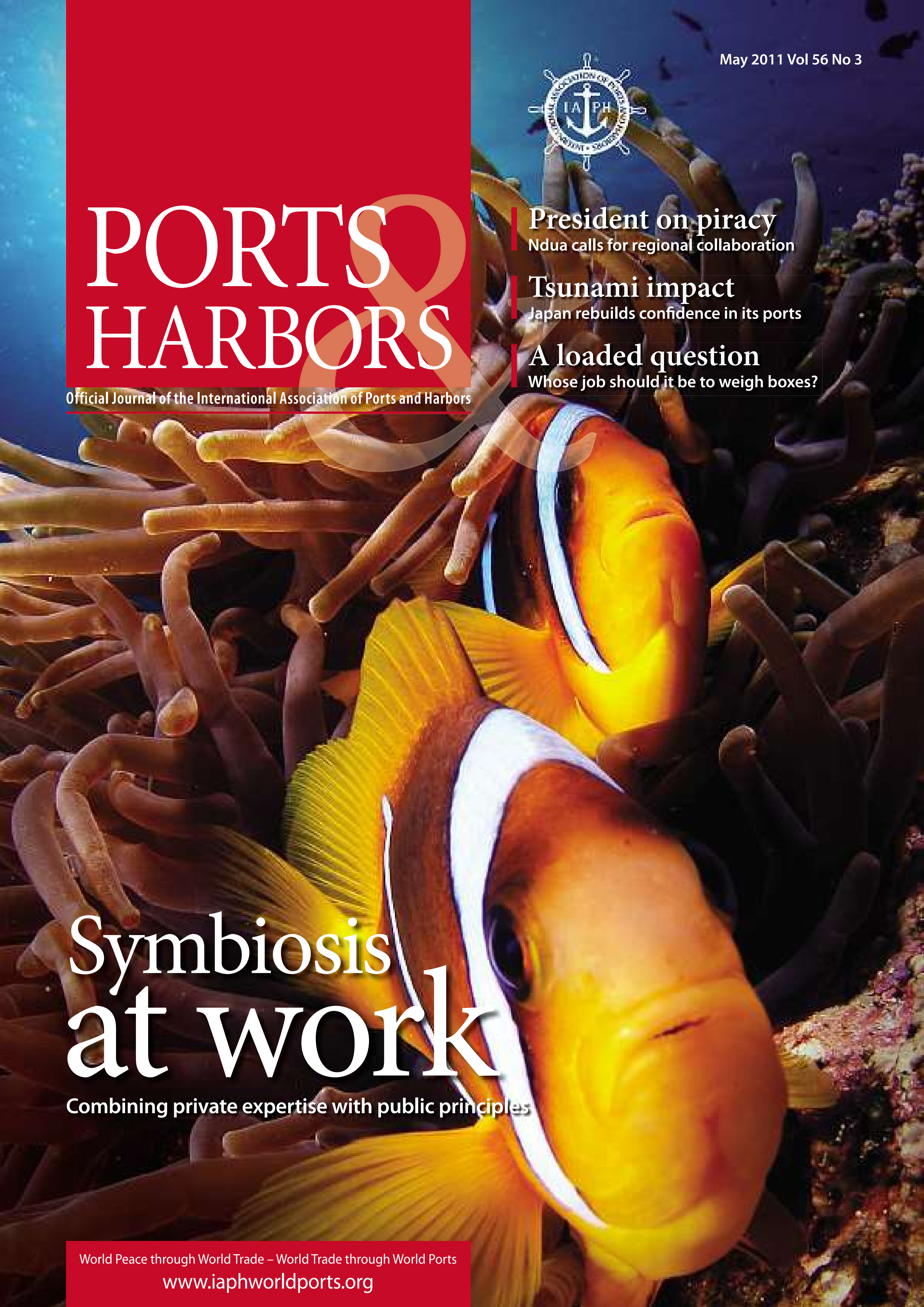

May 2011 Vol 56 No 3

PORTS & HARBORS

Official Journal of the International Association of Ports and Harbors

President on piracy
Ndua calls for regional collaboration

Tsunami impact
Japan rebuilds confidence in its ports

A loaded question
Whose job should it be to weigh boxes?

Symbiosis at work

Combining private expertise with public principles

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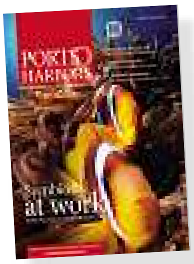
P&H CONTENTS

REGULARS

FEATURES



Mixing private with public… finding the right model for the port

Photo: Shutterstock

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Earthquake aftermath

We have much to learn from this disaster if we are to become more resilient, says the Secretary General

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

On the afternoon of 11 March, I felt big quakes at the IAPH headquarters in Tokyo. We evacuated the building immediately, but were able to return after about 30 minutes. At first I did not realise that it was such a devastating earthquake, which killed between 20,000 and 30,000 people.

The quakes triggered a 15m+ tsunami, which destroyed all the buildings in Tohoku region on the Pacific coast. The area has been affected by many major tsunamis in the past, so countermeasures were carefully planned and implemented. These included vast tsunami breakwaters – one of which is 60m deep – and 10m-high dykes (see IAPH's *Introduction to Port Preparedness for Tsunami*).

This time, the tsunami was far greater than those we had planned for and the countermeasures were not fully effective, although they did reduce its height to some degree. The tsunami also paralysed the Fukushima nuclear power plants by washing away their cooling systems.

> Some lines stopped their vessels calling at Japanese ports for fear of radiation, but they are now returning

Ports in the tsunami-devastated area are severely damaged, but the other ports, including major container ports such as Tokyo, have been operating normally and did not suffer major damage. Some lines stopped their vessels calling at Japanese ports for fear of radiation, but they are now returning.

Things are returning to normal, but I am afraid this disaster could affect global energy policy and economy in the foreseeable future. Strong opposition against nuclear power has emerged, and there are reports of motor vehicle plants being shut down worldwide because of a lack of components being exported from Japan.

Looking forward, we have much to learn from this disaster. We have to prepare ourselves, not only for earthquakes and tsunamis, but also other unexpected events such as the consequences of global warming. We have to prepare effective business continuity plans for ports, as damage to key ship-to-shore interfaces could affect the whole global supply chain. In a word, we need to be more resilient.

The Busan Conference this month will be an ideal opportunity for the industry to discuss these critical matters. Let's meet in Busan and have worthy discussions. PH

Port updates

ANTWERP/ESSAR'S MOU

The Port of Antwerp International (PAI) and India's Essar Ports have signed a memorandum of understanding to collaborate on Indian port development, focusing particularly on the state of Gujarat. The agreement includes consultancy, investment, commercial relations and joint training of professionals, using Antwerp Port Authority subsidiary APEC/Flanders Port Training Center. The partners' first joint project will be at the Port of Hazira.

MORE ORE AT HEDLAND

Moly Mines shipped its first load of 54,500 tonnes of iron ore to China at the end of December 2010, through the Utah Point multi-user facility in Western Australia. The company said it has now reached an agreement with the Port Hedland Port Authority for medium-term export capacity through to 2015, which will permit increased shipment size and frequency.

FLORIDA FILLS CASH GAP

The governor of the US state of Florida promised in March to use state money to plug a $75M federal funding hole in the budget for deepening the Port of Miami to 15. 2m. Container ports up and down the US east coast, including Miami, were denied federal dollars in the Obama administration's 2012 budget proposal for projects to deepen their harbors to accommodate post-Panamax box ships. Florida had already committed most of its share of the $150M dredging project, which the port plans to have completed in 2014.

ICTSI MOVES INTO CROATIA

Port operator ICTSI signed a contract in March in partnership with Luka Rijeka of Croatia to manage Adriatic Gate Container Terminal (AGCT), operator of Bradjica Container Terminal in Rijeka. ICTSI has purchased a 51% stake in the terminal for €15M ($25.5M). The venture is ICTSI's first in Croatia and its largest investment in southeast and central Europe. AGCT plans to invest more than €70M ($100M) in the initial phase of the concession, including new cranes and terminal management systems, said ICTSI.

Photo: Port of Los Angeles

Evergreen would benefit from better connections in and out of the Port of Los Angeles

Ports push for better connections

Deficient roads and bridges that connect ports to cross-country railways and highways are hindering the ability of the USA to compete overseas. That is the opinion of the country's port interests, which claim that dedicating a portion of land-based project funding to these port connectors is the best way to fix the problem.

"Ports are doing their share by investing more than $2Bn annually in capital improvement projects on their terminals," Kurt Nagle, president of the American Association of Port Authorities (AAPA), testified in Congress on 29 March. However, despite those investments, inadequate port connections "often create bottlenecks in and around seaports, resulting in congestion, productivity losses and a global economic disadvantage for America," Nagle cautioned.

Nagle pointed out that many of the roads into and out of ports are in a state of disrepair and are not fit for growing volumes of freight, which means that connector roads are often the weak link in the supply chain.

Nagle recommended to those in charge of finances in Congress that a minimum of 25% of funding made available under grant programmes administered by the US Department of Transportation (DoT) be set aside for these port conduits. He recommended a combination of methods to fund the scheme, including use of revenue from customs duties and raising the petrol tax.

Congressman John Mica of Florida, a Republican who chairs the US House Transportation and Infrastructure Committee, promised US ports in late March that he would seek funding for expanding port connections in a six-year reauthorisation of the Federal Transportation Bill, the funding mechanism for DoT projects. Negotiating a federal budget to avoid having to shut down the government, however, would take precedence over a transport bill, Mica said. He also said he would not be seeking an increase in the petrol tax because he does not have the support of his colleagues.

This is not the first time that the AAPA has sought funding for intermodal connectors. Similar language was included in the last surface transport reauthorisation in 2006, but on that occasion Congress failed to provide the funding in the ensuing budget negotiations. This time, AAPA spokesperson Aaron Ellis told *P&H*, "We think the fact that President Obama has made it a goal to double exports by 2014 will put more pressure on Congress to find ways to move forward on freight mobility projects" (see page 9).

With ports around the country seeing their container business rebound from the recession faster than anticipated, pressure to upgrade port connectors is likely to be heavier than ever. The Port of Los Angeles said it was too early to discuss specific projects that will seek funds from a surface transport reauthorisation.

However, Port of Los Angeles spokesman Phillip Sanfield told *Ports & Harbors* that "generally speaking, we are interested in this funding for freight infrastructure projects as well as potentially some of the road and interstate highway transportation projects planned around the San Pedro Bay port complex."

Race is on for next IMO secretary general

Six candidates are in the running to be the next secretary-general of the IMO – the most candidates ever nominated.

In alphabetical order, they are: Lee Sik Chai of South Korea (chairman of IMO's Legal Committee), Andreas Chrysostomou of Cyprus (chairman of IMO's Marine Environment Protection Committee), Neil Ferrer of the Philippines (chairman of IMO's Maritime Safety Committee), Jeffrey Lantz of the USA (director of commercial regulations and standards for the US Coast Guard), Esteban Pacha Vicente of Spain (director general of the International Mobile Satellite Organization) and Koji Sekimizu of Japan (director of IMO's Marine Environment Division). The deadline for nominations was 31 March.

There have been six nominations before – in 1974 – but three dropped out before the election took place. It was won by India's C P Srivastava, the longest-serving of the IMO's seven secretaries-general. Last year's IMO Council introduced additional voting procedures to deal with the possibility of four or more candidates and its selection will go to the IMO Assembly in November for approval in another secret ballot with two choices – to accept or reject the Council's selection. The election will be held at the 106th session of the 40-member IMO Council, which will meet from 27 June to 1 July. The present incumbent, Efthimios Mitropoulos, ends his second four-year term on 31 December.

The secretary-general's responsibilities are described in some of the articles of the IMO Convention. In brief, the secretary general:

- shall be the chief administrative officer of the organisation and shall… appoint the [secretariat's] personnel
- shall prepare and submit to the council the financial statements for each year and the budget estimates on a biennial basis
- shall keep members informed with respect to the activities of the organisation
- shall not seek or receive instructions from any government or from any authority external to the organisation [and, along with the staff] shall refrain from any action which might reflect on their position as international officials
- shall assume any other functions which may be assigned to him by the conventions, the Assembly of the Council.

Hakata goes all-electric

The arrival of four newly built, fully electric transfer cranes on 20 December 2010 fulfilled the aim of Island City Container Terminal (ICCT) to have its entire complement of 17 transfer cranes powered by electricity.

Port of Hakata, Japan, which operates the terminal, said that electrification of transfer cranes is part of a project to develop and test cargo handling technologies, promoted by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT). Port of Hakata started remodelling 13 diesel-powered transfer cranes as hybrid transfer cranes early last year and all existing transfer cranes at the terminal were converted by the end of October.

The port hopes that every year each electric transfer crane will enable CO_2 emissions to be reduced by roughly 114 tonnes and contribute energy cost savings of JPY18M ($212,600). MLIT and the port will monitor costs, emissions and productivity over the next couple of years.

Photo: Hakata Port & Harbor Bureau

Greener options… a hybrid transfer crane at Hakata

A Hakata Port & Harbor Bureau spokesperson told *Ports & Harbors* that, in realising low-carbon physical distribution both domestically and internationally, it is "aiming to be a developed, environmentally friendly port".

In October the port also installed retractable roofs for some of its reefer facilities to shade the containers from the sun and thereby to reduce power consumption. Two months later it became the first port in Japan to receive hybrid straddle carriers. It will also consider installing shoreside power in the future.

The spokesperson told *Ports & Harbors* that the port is developing an international and domestic ro-ro terminal at Hakozaki Wharf as a hub to expand the international network as well as to connect with local maritime services and railways. Hakata's plan is to develop this as a low-carbon network of transport options to Kyushu Island and Asia.

Port updates

SECURITY FEE CUT

Corpus Christi port commissioners reduced the security surcharge on wharfage and dockage from 10% to 7.5% on 1 April. The reduction will save vessel operators an estimated $900,000 and help the Texan port compete for business, commissioners said. The surcharge was put in place at Corpus Christi and other US ports after the 2001 terrorist attacks.

SILPORT ADDS CAPACITY

Estonia's port of Sillamae (Silport) is to build a new container terminal with a capacity of 350,000teu a year by 2013. Silport, which claims to be the "most eastern port of the EU", is operated by joint Russian-Estonian company AO Silport. Andrei Birov, the port's head of marketing, suggested the aim would be to recruit a "purely Russian operator" for the terminal. He added that it would have four quays and offer a berth depth of 14.5m.

LIEBHERR FOR LIVERPOOL

Port of Liverpool has received a new Liebherr harbor mobile crane, taking the Peel Ports Mersey Fleet to eight. It is equipped with real-time diagnostic capability and can handle 82 tonnes at its hook and 41 tonnes in spreader mode. Liverpool saw growth in all sectors in 2010 – dry and liquid bulks, metals, forest products and containers.

CRUISE TERMINAL OPENS

The first phase of a new passenger terminal, part of a £16.5M ($27M) investment, opened on 1 April at Portsmouth International Port in the UK, to be officially opened this month. "The new terminal is designed to accommodate a growing number of cruise ship passengers, as well as customers using existing ferry operators," the port stated.

CARBON CUT AT WWL

Shipping and logistics company Wallenius Wilhelmsen Logistics cut CO_2 emissions by 21% in 2010, compared with 2009, which the company attributed to fleet optimisation and utilisation. The company's low-sulphur fuel policy also saw SO_2 emissions fall by 151,000 tonnes from 2000 to 2010.

Cash & cargo

TACOMA LOOKS UP

Port of Tacoma's January box volumes saw a 13% year-on-year increase, with international containers up by 18% and domestic by 5%. Both domestic and international intermodal volumes rose in the same month and, overall, intermodal rail lifts were up by 12%.

PSA POSITIVE

PSA posted a throughput increase of 14.4% in 2010. The PSA Group's ports reported a volume of 65.12M teu. Singapore handled 27.68M teu and registered growth of 10.1%. Its interests beyond Singapore recorded combined volumes of 37.44M teu, 17.8% up on 2009. The group's revenue rose to S$4.08Bn ($3.2Bn), with net profit up 20.8% to S$1.18Bn.

VOLUMES GROW IN NZ

Ports of Auckland has reported growth in container, bulk and break-bulk volumes for 2H/2010. Container volume during the period was up 3.4% to 453,498teu, with import volumes up 6.1%. Bulk and break-bulk volume was up 40% to 1.88M tonnes, "reflecting a good recovery of volumes across all categories, along with the gaining of additional project cargo," the port stated.

IMPORTS BUOY LA & LB

Import boxes at Port of Los Angeles increased year-on-year in February, but exports showed little or no growth. Long Beach imports climbed 12.4% to 233,360teu, but exports fell 1% to 121,929teu. Los Angeles container imports increased 3.2% to 275,887teu, with exports increasing 1.6% to 150,357teu. At both ports empty containers bound for Asia for refilling were up significantly – 25.3% at Long Beach and 16.8% at LA.

HUTCHISON POSTS PROFIT

Hutchison Whampoa posted a net profit of HK$20Bn ($2.56Bn), up 47% from the HK$13.6Bn it made last year. The ports and related services division's total throughput grew 15% year-on-year to 75Mteu in 2010 and total revenue grew 13% to HK$37.7Bn (roughly $5Bn), with gross profit rising 30% to HK$11.6Bn ($1.5 Bn).

The first phase of Khalifa offshore port will have a multi-purpose quay for ro-ro, containers and general cargo

Photo: ADPC

Abu Dhabi plans beyond oil

Abu Dhabi is looking beyond oil by building a giant industrial zone and port facility to ensure that by 2030 its economy diversifies away from the current dependence on fossil fuel.

The vast industrial zone – at more than 400km^2, it is claimed to be two-thirds the size of Singapore when fully occupied – will offer a home to industrial manufacturing clusters covering such sectors as metals processing and products, chemicals, petrochemicals, pharmaceuticals and paper and packaging.

"Today 60% of the economy of Abu Dhabi depends on oil and gas and 40% on other industries. By 2030, these percentages will be reversed," Michael Tomalin, group CEO of the National Bank of Abu Dhabi, told delegates at the World Ports & Trade Summit recently held in the emirate.

The port, located about halfway between the UAE capital and Dubai, will extend 4.6km offshore. The first phase, accommodating container, ro-ro and breakbulk import cargo, is well advanced, with the final paving of quay areas nearing completion. The recently appointed operator, Abu Dhabi Terminals, expects to welcome its first container vessel in late 2012.

Initially, the port will handle the destination cargo that currently arrives at the small container port of Mina Zayed, located within the city. However, as Khalifa Industrial Zone Abu Dhabi – Kizad – expands its industrial client base, the port will progressively expand both import and export cargo. The first phase will have a capacity of 2M teu and 12m tonnes of general cargo. A key feature of the container terminal is the first fully automated stacking area in the Middle East, controlled by computer software.

Kizad's main innovation is to bring together raw material processors with their downstream companies in a process called vertically integrated clustering, which will offer economies of proximity and productivity improvements. The zone will offer both competitive leasing terms and some of the lowest utility costs in the world.

The construction later this decade of a high-capacity railway along the Gulf coast will offer Kizad clients world-class connectivity for their products and take an estimated 900 trucks daily off Emirates roads. "[Khalifa is] the first deepwater port in Middle East purposely designed to have rail connectivity direct to the container yard," said port company CEO Tony Douglas. ADPC is also building a superhighway with six lanes in both directions through the industrial zone to the main E11 highway linking Abu Dhabi and Dubai with the rest of the United Arab Emirates.

Up-to-date dredging

The latest edition of *Dredging for Development* is now available. First published in 1983, the book is in its sixth edition, edited by Nick Bray, of HR Wallingford and Marsha Cohen, editor of *Terra et Aqua*; it is jointly published by the International Association of Dredging Companies (IADC) and IAPH. After the fifth edition sold out, requests for the book continued to come in. Instead of simply reprinting the title, however, it was decided to update the text in order to reflect recent technological advances and innovations in the industry.

The publication explains the applications of dredging, types of dredged materials and the wide range of dedicated dredging equipment available.

People

STOCKHOLM'S CEO
Forty-seven year-old Johan Castwall became the new CEO of Ports of Stockholm on 15 April. Previously he was CEO of SISAB, head of public relations for the City of Stockholm Traffic Office, director of development for Stockholms Stadshus, and administrative head of the City of Stockholm's sanitation management services. He said: "Ports of Stockholm will face a number of major challenges over the coming years. In addition to continuing the positive development of port operations, the group will also make a number of large investments."

NEW CHAIR AT SIPG
Chen Xuyuan has taken up the position of chairman at Shanghai International Port Group (SIPG), succeeding Lu Haihu. He served as SIPG's president for the past five years since the group became a share-holding company in June 2005. He was also vice-president from January 2003 to June 2005. He joined the company in 1973 and has held management positions in operation, investment and finance.

MASSPORT CEO RETIRES
Massachusetts Port Authority's CEO, Thomas Kinton, is retiring on 1 June to pursue other interests. Kinton joined Massport in 1976 filling a temporary job in the engineering department. After holding various positions in the aviation department, he became aviation director in 1993. He was appointed chief executive of MPA in 2006 and took on the responsibility of the cruise and container terminals in the port, the Tobin Bridge and property development.

ADVICE SOUGHT
Two members of the Port of Rotterdam Authority Supervisory Board will step down this month: Ad Scheepbouwer, chair, and René Smit, the supervisory director. Merel van Vroonhoven, a Dutch railways board member, has been appointed to the latter position. The departure of Scheepbouwer and Smit means that the supervisory board will comprise Rob Abrahamsen, Mel Kroon, Rutger van Slobbe and Merel van Vroonhoven.

Maersk tops teus

Graphic: APM Terminals

Maersk's Triple-E class can carry 18,000teu

Maersk Line plans to upgrade its Asia-Pacific to Europe services with 18,000teu vessels and has placed an order at South Korea's DSME shipyard group for 10 such vessels for delivery from 2013 to 2015, plus options for 20 more. The Triple-E class – derived from the mantra "economy of scale, energy efficiency, environmentally improved" – is 400m long, 59m wide and 73m high and can reach a maximum speed of 23kt, but its service speed will only be 19kt, said Maersk CEO Eivind Kolding.

Power consumption of the $190M vessels, powered by two ultra-long stroke engines, will be 35% lower per carried container than the 13,100teu new Panamax designs being introduced by many of its competitors over the coming years, Maersk said. Given the increased share of fuel costs in logistics operations and upward pressure on bunker adjustment factors charged to the lines' customers, the big-ship proposition could be compelling for shippers.

Maersk has consistently stayed several years ahead in terms of economies of scale and the hurdles competitors face in catching up with the company seem to be getting bigger. Torsten Temp, executive board member at ship financier HSH Nordbank, played down the risk that the Maersk order will instigate a new ship ordering flurry among container lines eager to preserve their market share. "Who would have enough funds available today to follow Maersk?" he asked journalists in Hamburg in February.

A second major constraint for other carriers to move up to similar-sized tonnage is the lack of a dedicated terminal network. Unlike Maersk's group affiliate APM Terminals, most common-user facilities don't have gantry cranes able to handle the 23 rows of containers stowed across the deck of the Triple E-class. Underpinned by Maersk's own requirements, APM Terminals is in a better position to shoulder the huge gantry investments than any other terminal operator. "At 400m they will require large turning basins. The wider beam helps stability and means less ballast to carry," Tom Boyd, director of external communications at APM Terminals told *P&H*. He added that at 15m, the vessels' draught is the same as that of the largest vessels now in service. "Draught-wise, it's not a game-changer," he added.

Some of the company's facilities are already being upgraded with equipment capable of handling even bigger ships. Its German terminal joint-venture partner Eurogate said in November that it is negotiating for gantries that can reach across 25 box rows for a new deepsea port at Wilhelmshaven that will complement the existing Maersk hub in Bremerhaven from August 2012.

Boyd added that from a port and terminal perspective the new vessels will need land. "Space required to offload thousands of containers and efficiently place them in the terminal is vital." It follows that the number of trucks coming in to port either to drop off or pick up will also see an exponential increase, he said.

TWIC card life extension proposed

Legislation was proposed on 15 March with the aim of sparing seafarers potential additional costs and security delays associated with the TWIC port security card programme. The proposal would effectively provide a life extension for identity cards issued under the Transportation Worker Identification Card (TWIC) scheme. The cards permit seafarers to have unescorted access to port terminal areas and currently are set to expire from October 2012 onwards.

However, development and final approval of the electronic card readers that are an integral part of the overall scheme have been delayed and it seems unlikely that the readers can be introduced before the TWIC deadline expires. Seafarers who have paid to renew their cards might then find that their new cards are not compatible with the readers. The rule change would allow existing cards to be used until the readers are rolled out.

Operators should reap the fruits of port-centricity

Port operators have been urged to offer wide-ranging services beyond their boundaries if they are to stop being considered a means to an end with no added value. Nigel Jenney, CEO of the Fresh Produce Consortium, told the Port Centric conference in Birmingham, UK, on 1 March that "port-centricity is fundamental" in achieving this, but "very few collaborate with this concept".

"The concept will only succeed if its efficiencies are identified and consistently delivered," Jenney said, adding that hubs pursuing a port-centric strategy need to be linked with "robust and detailed" supply chains.

Graham Wall, commercial director of PD Ports, said that port-centric clusters can deliver results only if ports are flexible in adapting to new types of supply chains. That point was echoed by Andy Rickard, logistics director of Liverpool's Fresh Produce Terminal: "If you build it, they will come."

"Collaboration between industries is key," said Wall, who stressed that it is important, too, to engage with all players in the supply chain so as to create a consensus. "The aim of port-centric clusters is to create momentum around an entry point and widen their hinterland," he explained.

US export drive needs ports

President Obama's goal is to double the USA's exports by 2014, and officials at the Department of Commerce (DoC) want to partner with ports to help achieve this aim. Courtney Gregoire, director of the department's National Export Initiative, proposed that the DoC and the American Association of Port Authorities (AAPA) work together to craft a joint initiative to help seaports expand export promotion efforts. "Experienced port officials know their exporters' needs, federal export promotion programmes, and overseas trade contacts", Gregoire told attendees at an AAPA meeting in Washington DC in March.

They can help these exporters to identify overseas markets and trade leads, understand basic commercial transaction requirements and address financing, insurance and trade documentation, Gregoire noted. She held up the Port of Los Angeles' Trade Connect programme as a blueprint for the initiative. The scheme, which began in 2007, uses a series of seminars to help seaports educate potential exporters and help them succeed in overseas markets.

US exports of goods and services increased 17% in 2010 over 2009, which represents the largest year-to-year change in more than 20 years, Gregoire noted, adding that it put the USA on pace to meet Obama's export goal.

Chinese connection

Four operators have joined forces to connect central China with Long Beach from 4 April. WanHai Lines, Coscon Container Lines, Hanjin Shipping and Pacific International Lines will together operate five vessels sailing from Fuzhou to Ningbo, Shanghai, Yokohama and Long Beach. Two of the 3,600–3,850teu vessels are provided by Coscon; the other three partners added one vessel each.

"Co-operation between us in the past was quite good, so we are glad to work together whenever there is a chance," said Laura Su, WanHai's spokesperson. According to Su, Coscon will also enter into a cross-charter arrangement with the other three operators for the southeast Asia service, "in order to provide our customers better services". She added: "Further co-operation between us might be possible, if the service proposal meets our needs."

Dredging

BAKU CONTRACT SIGNED

Azerbaijan's transport ministry signed a €80M ($110M) contract with Van Oord to dredge the new Baku International Sea Trade Port in Alat. The two-year project involves dredging a 7km-long, 160m-wide navigation channel and a turning basin. About 8.8M m^3 of material is expected to be removed. The port will be built in three stages and should be complete by 2015.

DREDGING DATE SET

Work on Australia's largest-ever dredging project will begin in June. Joint-venture partners Van Oord and Dredging International Australia have won the first-stage A$387M ($406M) contract for the Western Basin Dredging and Disposal Project at Gladstone Harbour. The first phase represents about one-quarter of the dredging task and will see material placed offshore and in an area under construction at Fisherman's Landing.

SINGAPORE SEDIMENT

Penta-Ocean Construction is dredging Singapore's East Keppel Fairway, the Maritime and Port Authority has announced. The project will include dredging and dumping of sediment near Pasir Panjang Terminal and wharves and the western part of Singapore waters. The campaign will last until 10 September.

INDIA SIGNS FOR DREDGER

Dredging Corporation of India has signed a contract with IHC Dredgers to design, build and supply a 5,500m^3 trailing suction hopper dredger for river and shallow-water dredging. Costing $113M, it is scheduled for delivery in September 2014. Two other 5,500m^3 trailers were commissioned in April 2010 and should be delivered in November 2012 and May 2013.

DIGGING FOR DRAUGHT

Dredging at Sydney Harbor, Nova Scotia, should begin in October, said project manager Jim Wooder. The C$38M ($39.5M) project is currently awaiting permits from Transport Canada, the federal Department of Fisheries and Oceans and the Nova Scotia Environment Department.

Photo: Virginia Port Authority

Virginia Inland Port was built to attract business from competing northeastern ports

US ports start to move inland

Efforts by stakeholders in the US transport industry to shift port activities hundreds of kilometres inland so as to squeeze out supply chain costs are helping traditional seaports grow their business quickly. The Port of Virginia is already loading an extra intermodal train per day as a result of an expanded inland port known as the Rickenbacker intermodal facility in Columbus, Ohio.

The facility is the western terminus of the Heartland Corridor – railway conglomerate Norfolk Southern's massive $320M track and tunnel modification project – which opened for business in late 2010. Norfolk Southern raised clearances along the route between the port and Ohio, allowing it to double its hauling capacity and speed freight services to the US Midwest by stacking a second layer of containers on its intermodal trains.

Referring to the Heartland Corridor expansion, Virginia Port Authority (VPA) spokesman Joe Harris told *P&H*: "We think we can double the lift capacity at our Norfolk International Terminal if those types of volumes were put upon us."

Harris is in a particularly good position to assess the value of inland ports, because VPA owns Virginia Inland Port (VIP) in Front Royal, Virginia, 354km northwest of the port's marine terminals in Hampton Roads. VIP, which opened in 1989, was designed to capture import and export truck traffic that otherwise would have moved over the highway between inland distribution points and competing ports in Baltimore, Philadelphia and New York. Box volume at VIP increased 24% to 30,414 lifts in 2010.

"We've always viewed VIP as taking our port and moving it 220 miles [350km] inland closer to potential customers", Harris said. "For [big-box retailer] Home Depot, their container comes off the ship, loaded directly on to a train and railed to VIP the next morning, so it's as good as having a distribution centre right here on our fence line at the port."

It's that ability to expand inland for customers needing large distribution centres that makes inland ports valuable to land-starved port areas, said Aaron Ellis, spokesperson for the American Association of Port Authorities. That, said Ellis, was the driver for building the 32km-long, below-ground railway route known as the Alameda Corridor, which connects the container ports of Los Angeles and Long Beach to intermodal depots owned by the Union Pacific Railroad and BNSF Railway. The corridor allows trains to avoid congestion in downtown Los Angeles and speeds up service to inland distribution centres.

"The ports also want to be near their customers, and if they can site an area where cargo is transloaded closer to where customers have their distribution centres rather than at the port, it attracts more logistics operations to that area," Ellis told *P&H*.

The state of Nevada is looking to capitalise on that aspect of the inland port concept. Legislation proposed in February in the state's assembly would create "inland port authorities" near the cities of Las Vegas and Reno – hundreds of kilometres from the west coast – that would encourage logistics companies to develop distribution centres and rail and truck operators to invest in infrastructure.

Serving as a model is the 8,094ha Tahoe-Reno Industrial Center in the northern part of the state and where big-box retailer Wal-Mart has a 92,900m^3 distribution centre. The rail-, truck- and air-served facility serves as a logistics hub for the western USA.

The Nevada Commission on Economic Development claims that Nevada's location near traditional container hub centres in Seattle, Denver, Los Angeles and Oakland will give Reno and Las Vegas an inland transportation pricing advantage that will attract more international shipments into the US supply chain.

"It all comes down to transport costs," Ellis asserted, "and the longer a container sits on a truck or a train the less ability the US will have to compete overseas."

Securing a region's economy

The Kenyan government and port authority both recognise the importance of a secure maritime transport network to support the region's economy, says ***Gichiri Ndua***

Port security is a major concern for the Kenyan government, especially in light of a number of terrorist attacks and threats in Kenya and the increasing incidence of piracy in the Indian Ocean and along the east African coastline. These terrorism threats and piracy attacks have adversely affected the Port of Mombasa, particularly cruise shipping. Before the growth in piracy Mombasa was handling more than 40 cruise ships during the cruise season from September to March every year. This figure has reduced to around 10.

Mombasa is the largest port in east Africa and serves as the main gateway to the east African countries of Kenya, Uganda, Ruanda, Burundi, Democratic Republic of Congo, northern Tanzania, southern Sudan and Ethiopia. It therefore plays a vital role in

Mombasa's oil terminal is one key facility to be protected by integrated security

Photo: KPA

enhancing the region's economy and is an important hub for global trade.

Nearly 85% of Kenya's international trade transits through the Port of Mombasa. The global economy is based on the maritime transport industry and this can clearly be seen in east Africa where it plays a critical role in the region's prosperity. It is essential that these transport links remain open and accessible.

Kenya Ports Authority (KPA), which owns and manages Port of Mombasa, is taking an active role in unifying various aspects of the port's security, as it is essential to facilitate international maritime trade through this port. KPA signed a contract on 11 December 2010 with Israel-based security company Magal Security Systems for the installation of an integrated security system for Mombasa. The contract, worth $21.4M, will involve the development of a high-tech security system that will make the Port of Mombasa one of the most secure in Africa. The system is expected to be fully operational in June 2012.

The project is being funded by the World Bank, which in 2006 agreed to assist the Kenyan government under the East Africa Trade & Transport Facilitation Project (EATTFP) to install the integrated security system and to improve port security. The objective of the EATTFP was to enhance efficiency along major transport corridors in east Africa. The integrated security system is a turnkey project involving the development of civil infrastructure and communications network, a comprehensive security solution and training and support.

The security system will include a 10km port boundary wall and fence-fitted perimeter detection system, an access control system with different types of gates and barriers, full CCTV coverage of the entire port area with night and day surveillance cameras, and intercom and radio communication. All these systems will be networked and integrated by Magal's security management software, Fortis.

Other features include security barriers and scanners for cruise ships and passengers. The system will be controlled and monitored from a main control room linked to a number of local control centres. Coverage is restricted to the port area – the 600km-long Kenyan coastline is already monitored by another system of radars which is controlled by the Kenya Navy.

> Ports should ensure that they fully comply with the ISPS Code and co-operate regionally against acts of piracy and robbery
>
> **Gichiri Ndua**, *MD, Kenya Ports Authority*


Photo: Port of Yokohama

The port's integrated system will protect key facilities and infrastructure such as the container terminal and oil terminals from acts of terrorism or sabotage and enable early detection of suspicious activities in the port. It will also serve as a deterrent to potential criminal and illegal activities such as terrorism, piracy and cargo pilferage and will have the capacity to detect drugs, narcotics and explosive devices that may be trafficked through the port.

After the ISPS Code was introduced in 2002, KPA put in place an action plan that would enable its ports both to comply with the code and improve security generally. Other security issues faced by the authority's ports included widespread container theft, stowaways and attacks on vessels in the harbor.

KPA's ports all met the requirements for ISPS compliance by July 2004 and it has continued to update and improve its security under the action plan. In 2005 the authority conducted a comprehensive security assessment that identified the need for an integrated security system in the Port of Mombasa, which resulted in the contract with Magal.

Ports must ensure that they fully comply with the ISPS Code and co-operate regionally against acts of piracy and robbery in ports and at sea. KPA has risen to these challenges. Port of Mombasa houses the Regional Rescue and Coordination Centre, commissioned by the IMO in 2006 and operated by the Kenya Maritime Authority, which is responsible for the country's maritime safety and security. This centre covers extensive areas of the western India Ocean including the Seychelles and shares information within this region.

To strengthen security at the port of Mombasa, KPA also started screening containers for radioactive material in in February this year. Scanners and equipment have been installed under the Megaports Initiative co-ordinated by the National Nuclear Security Administration of the US Government. The objective of this programme is to interdict illicit trafficking of radioactive material.

Furthermore, on 31 March IMO secretary general Efthimios Mitropoulos identified the Mombasa centre as one of three information-sharing centres (ISCs), as envisaged by the Djibouti Code of Conduct concerning the Repression of Piracy and Armed Robbery Against Ships in the Western Indian Ocean and Gulf of Aden. The code was adopted in January 2009 and requires the region's ports to share and report information.

The presence of the ISC will be of benefit as the KPA will receive up-to-date and timely information on piracy in the region that may affect the Port of Mombasa. Coupled with the integrated security system, this should enhance security at the Port of Mombasa and facilitate the smooth flow of goods and passengers through the port. PH

Gichiri Ndua is managing director of Kenya Ports Authority and president of IAPH
More info: www.kpa.co.ke

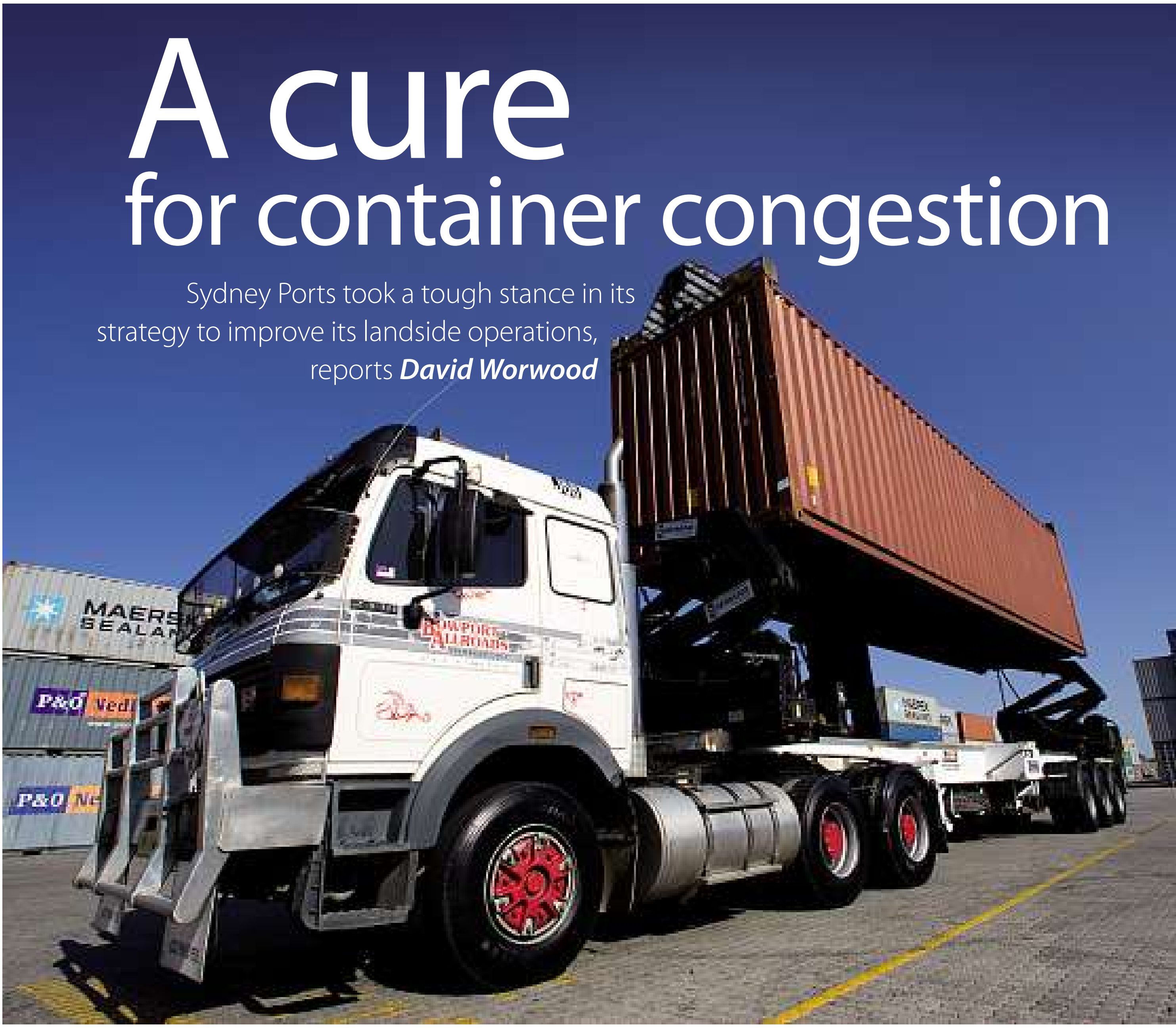
Throughput and facilities

Kenya Ports Authority (KPA) is responsible for managing all of the country's ports. These include the principal port of Mombasa, plus Lamu, Malindi, Kilifi, Mtwapa, Kiunga, Shimoni, Funzi and Vanga. Mombasa handles close to 20M tonnes of cargo annually including 700,000teu in container traffic. Nearly 28% of the traffic handled is in transit to neighbouring countries. Its facilities include a well-sheltered harbor, general cargo berths, two oil terminals and a 600m-long container terminal. Between 2005 and 2009 the Port of Mombasa registered an impressive annual growth rate of 8.7% rising from 11.8M tonnes to 17.4M tonnes.

KPA is modernising and expanding the facilities at its ports to respond to this growth in cargo traffic. Projects include dredging and widening of the channel to accommodate post-Panamax-size container ships, increasing the length of its existing container terminal by 160m and construction of a new 15m-deep container terminal with a capacity of 1.2M teu.

A cure for container congestion

Sydney Ports took a tough stance in its strategy to improve its landside operations, reports ***David Worwood***



Congestion remains a challenge facing many ports with growing trade. Sydney Ports Corporation in Australia hopes to combat the problem through a radical new approach to performance standards at its Port Botany container terminal.

This New South Wales government-sanctioned initiative, known as the Port Botany Landside Improvement Strategy (PBLIS), began on 28 February and levies fines on truck operators whose vehicles fail to arrive in time for booked slots. Stevedores whose performance falls short of a given level will also be fined. Mandatory standards were put in place to control the operation of the scheme and the Labor state government passed regulation to enforce them.

According to Sydney Ports, the objective of PBLIS is "to maximise the amount of trade passing through Port Botany by making the landside supply chain more efficient, transparent, consistent and achieving 24/7 operations". The new rules did not appear overnight. Since late 2008 Sydney Ports has consulted widely with stakeholders, port users and the transport industry in general. In February this year there was a month-long final industry trial of PBLIS at the port.

The trial gave port users the chance to adapt to the new Operational Performance Management (OPM) framework, which sets out the standards against which performance – or under-performance – is measured. Sydney Ports was also able to glean vital information about the efficiency of the port-road interface. "The framework establishes a clear commercial relationship between carriers and stevedores whereby penalties are paid by either party for failing to achieve regulated performance benchmarks," Sydney Ports maintained.

If the first stage of PBLIS (involving truck access and

Penalties were seen as the only way to tackle access problems and long truck turnround times

Photo: Brendan Read

rail service pricing) fails to work, a second stage will kick in during 2012, featuring a demand management system, a review of empty container parks' performance and the introduction of rail performance standards.

Under the first stage a truck operator pays the stevedore if a vehicle is late for a slot or does not show up, while the stevedore pays the truck operator if the driver is forced to wait for a container or is subject to other delays or cancellations. Later this year, as soon as a truck marshalling area has been established, penalties will be introduced for trucks arriving too early at the terminal. Invoicing processes for the whole system will be monitored and audited by Sydney Ports.

Financial penalties of A$100 (US$103) apply for a truck that does not show up or is excessively late, while the stevedore would typically pay the road transport operator A$150 if the truck has been waiting for its container for more than 75 minutes. If the parties cannot resolve an argument over fines the dispute can be lodged with Sydney Ports after 28 days.

Radio-frequency identity tags inside the trucks will monitor the entry and exit of the vehicles to and from the Port Botany terminal. More than 1,900 tags have already been ordered. Truck tracking should start in May and full measurement of 'queue-in to gate-out' times is due by the third quarter of the year.

The imposition of reciprocal penalties has not been without controversy, for the new scheme is an attempt to change a longstanding culture where terminal access by trucks has proved haphazard and stevedores' truck turnaround times have varied considerably.

Nevertheless, Sydney Ports reported that the transport sector had "responded well to the trial operations, with truck carriers showing a distinct change in behaviour to meet the more disciplined approach by the stevedores to servicing trucks at their container terminals". During the final trial in February, stevedore Patrick averaged 36 minutes and DP World 62. However, the port said an improvement has already been seen since 28 February when the scheme went live. Truck turnround times for both stevedores were reduced to an average time of 25 minutes.

In 2008 the New South Wales government gave stevedores and road transport operators the chance to reach a voluntary deal on the reforms. DP World and Patrick Terminals, the two terminal operators at the port, both of which also provide stevedoring, are said to have resisted reform and by mid-2010 it was clear that the government needed to enact regulation on the issue.

On 17 March this year *Australasian Transport News* reported that Patrick was asking for changes, "claiming the scheme has had little effect on efficiency" and that, despite the fines, trucks were still arriving late for slots – not least because they were getting caught up in congestion on Sydney's busy roads. The trucking sector reportedly also had some early complaints about the scheme, specifically the higher slot and telephone booking fees being levied by Patrick.

A week later, however, Patrick confirmed to *P&H* that it was "committed to working within the framework of the PBLIS regulation and will continue to liaise with all supply chain members and Sydney Ports Corporation with regards to any issue that may arise at Port Botany".

One of the main challenges for PBLIS lies in obtaining performance measurement data. "There are challenges in ascertaining actual stakeholder compliance given the data is controlled by the stevedores," Sydney Ports told *P&H*. "In addition, the relevant information is owned by the stevedore-owned information provider 1-Stop."

The port insists that the advantages are clear: truck operators will have greater certainty of access and less terminal congestion, while stevedores will benefit from more predictable truck arrivals, enabling them to manage their labour more efficiently.

Rail is an important component in the overall strategy to reduce congestion and improve the supply chain at Port Botany, and it is the port's firm intention to increase the percentage of containers carried by rail. To assist this goal, a Port Botany Rail Team consisting of rail industry participants has been set up. After Patrick unilaterally decided to increase its rail lift charges by 67%, the state government reportedly decided to regulate rail service pricing at Port Botany.

At this stage it is unclear what stance the newly elected conservative NSW state government will adopt towards PBLIS and port-related regulation in general. There could well be 'interpretation issues' as the move is made from a manual to an automated system of data collection, the port conceded.

Sydney's overall position will be boosted by the opening of an A$1Bn third container terminal at Port Botany in 2012. This five-berth facility will be operated by Hutchison Port Holdings. Sydney port handled 1.9Mteu in fiscal year 2009–10. PH

More info: www.sydneyports.com.au/port_development/landside_improvement

Photo: Clark Equipment Australia

Photo: Patrick Terminals

Right: The port's operators have cut turnaround times from over an hour to 25 minutes

Far right: Port Botany stevedore Patrick Terminals should benefit from predictable truck arrivals

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The International Association of Ports and Harbors (IAPH) is a global alliance representing over 200 ports in 90 countries. Together, IAPH member ports handle over 60% of the world's sea-borne trade and nearly 90% of the world's container traffic. It is a non-profit-making and non-governmental organisation headquartered in Tokyo, Japan.

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'World Peace through World Trade – World Trade through World Ports'

Photo: Reuters

After the earthquake

Japan's resilient port and hinterland network will play a key role in its recovery, reports ***Rajiv Biswas***

Earthquake distruction… containers in Sendai, Japan, on 12 March

The earthquake that hit northeast Japan on 11 March has caused major economic damage to the Japanese economy in the short term, with the costs of reconstruction in the devastated northeastern prefectures estimated at $300Bn. Economic growth is estimated to turn negative in the first two quarters of 2011, because of disruption to electricity supplies and manufacturing production.

Large-scale reconstruction work is expected to start in the second half of 2011 and continue through 2012. This is likely to drive an economic recovery that should be visible in a few months time. After taking account of the earthquake impact, Japanese GDP growth is forecast by IHS Global Insight to strengthen from just 0.5% growth in 2011 to around 3.5% in 2012, boosted by large-scale reconstruction and normalisation of industrial production.

In the near term, the triple blows of the earthquake, tsunami and nuclear disaster combined to cause extensive disruption to industrial production in the second half of March. The process of restoring output to normal levels will be protracted, in consequence of supply chain problems for the vehicle manufacturing and electronics sectors as a result of damage to key plants and equipment in northeast Japan.

The industrial sector's difficulties have been compounded by the estimated loss of around 10% of the country's total electricity-generating capacity (approximately 20GW), because of damage caused to several nuclear and coal-fired power stations. This has triggered scheduled blackouts that could continue into the middle of this year, which will extend the recovery process for the industrial sector.

The giant tsunamis triggered by the earthquake badly damaged a number of medium-sized ports in the northeast of the country, including Sendai, Ishinomaki, Onahama and Hachinohe. These facilities normally handle containers, dry bulk cargo and fuel products and will require considerable reconstruction work before they are fully operational again.

Nevertheless, major efforts have already taken place to restore operational capability, with 12 of the 15 ports that sustained damage now having some degree of operational capability, albeit very limited in some cases. At the time of writing (late March), only Ishinomaki and the smaller port of Ofunato remained closed, with limited access in part of Ibaraki port. The vital regional port of Sendai, which was badly damaged as well, is open for disaster relief operations and received its first shipment of fuel oil on 21 March.

Overall, much of Japan's port infrastructure has survived the natural disaster intact, with Japan's two largest ports, Tokyo and Yokohama, operating normally. The capacity of the existing operational ports infrastructure in Japan is sufficient to handle the country's container trade, dry bulk and wet bulk cargo trade. Clearly the disruption to Japanese manufacturing production since the earthquake will continue to create significant reductions in shipping export volumes until normal manufacturing production levels can be restored.

Importantly, 39 of Japan's 40 LNG terminals have remained operational. This provides critical capacity to handle the increased energy import requirements that are anticipated as a result of damage to both nuclear and coal-fuelled power stations. Increased imports of oil and LNG will certainly play a crucial part in Japan's efforts to boost near-term electricity production capacity, with a number of LNG-fuelled power stations expected to be brought back on line in the near future to provide additional capacity.

The crisis at the Fukushima nuclear plant may lead to significant changes in energy policy not only in Japan but also in other large Asian countries. Downgraded plans for nuclear energy will boost the outlook for LNG, clean coal technology and renewables. In the case of Japan, this could result in significantly increased requirements for LNG handling capacity in the long term.

Fears of radiation from the stricken nuclear plant could affect shipping in the vicinity of Fukushima. The rejection of the *MOL Presence* at Xiamen port in China after detection of slightly higher-than-normal radiation levels (albeit still well within acceptable safety ranges) has increased the focus on this issue. Radiation readings in the seawater just off the Fukushima nuclear plant were rising sharply towards the end of March. The *MOL Presence* sailed past Fukushima Prefecture, the location of the damaged Japanese nuclear plant, at a distance of 120km, well outside the 30km exclusion zone recommended at the time by the Japan Coast Guard. This exclusion zone has since been increased to 80nm (148km).

IHS Global Insight's Rajiv Biswas: Japan will see a 3.5% increase in growth in 2012

The potential risk to global supply chains is also highlighted in the decision by Hapag-Lloyd to cut out calls at Japan's two largest ports, Tokyo and Yokohama. Maersk has already banned its ships from sailing within 140nm of Fukushima. If other major lines impose shipping exclusion zones and decide to suspend their calls at Tokyo and Yokohama, it could create logistical problems as increasing volumes of traffic are routed through the more southerly Japanese ports until the radiation leak has been brought under control.

At the end of March, most major international shipping lines were still operating normal services to Tokyo and Yokohama, and some lines have introduced facilities for radiation checks. In addition, Japanese cargoes arriving in foreign ports were being tested for radiation. As a result, Japanese companies and international lines will be under pressure to introduce further measures to analyse their ships and cargoes for radiation.

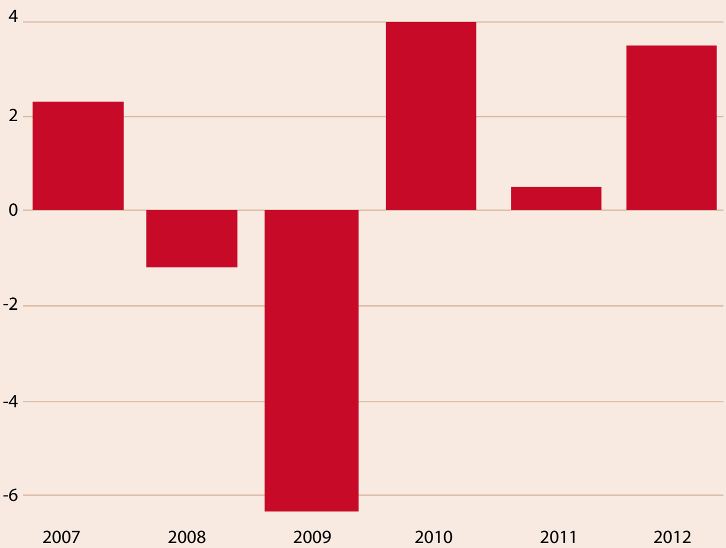
Japan's ports and shipping infrastructure have survived the impact of the earthquake with the bulk of operational capacity intact. This is an important element of Japan's ability to recover rapidly from the disaster, since essential raw materials and energy imports will need to flow through the ports infrastructure.

Some logistical difficulties will continue over coming months as the damaged northeastern ports are rebuilt. The inland transport system, however, is expected to be restored relatively quickly, allowing for transhipments via more southerly ports, thanks to Japan's highly advanced technology and building construction capabilities.

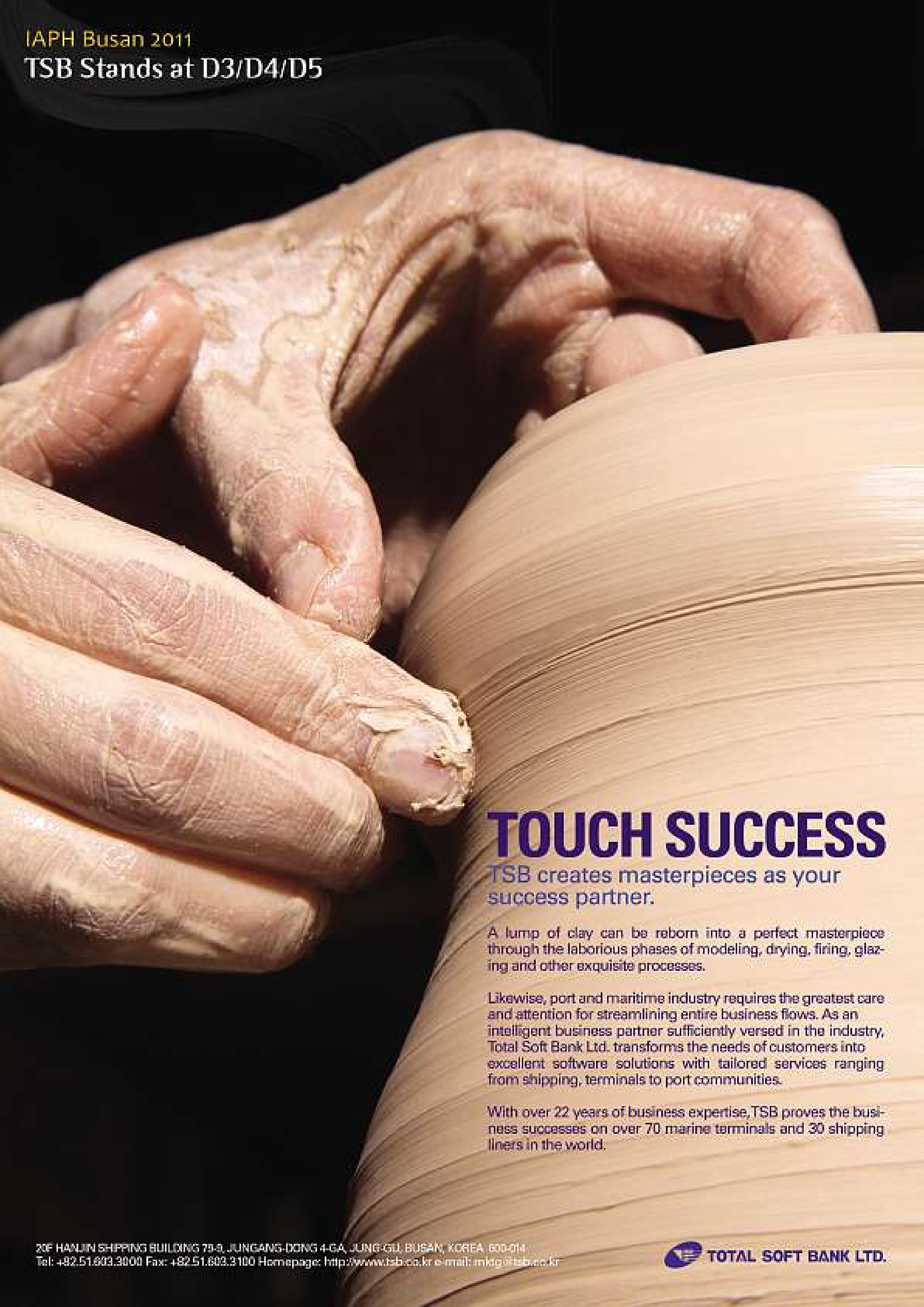
A key uncertainty is how long it will take to contain the nuclear radiation leaks from the Fukushima plant. Once this has been achieved, Japan should be able to move forward rapidly on the path towards economic reconstruction. We should see a significant economic rebound in the Japanese economy in the second half of 2011 and throughout 2012. PH

Rajiv Biswas is chief Asia economist for IHS Global Insight
More info: www.ihs.com

Japanese GDP growth forecast 2011-12
Annual percentage change



Source: IHS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Watching their weight

Photo: iStockphoto

Ports may find themselves responsible for ensuring that container weights are not misdeclared. ***Stephen Cousins*** considers the options

The deliberate misdeclaration of shipping container weights costs the industry and governments billions of dollars in lost revenue each year and threatens the safety of ships and their crew. So who should take responsibility for checking container weights, and how and where should it be carried out?

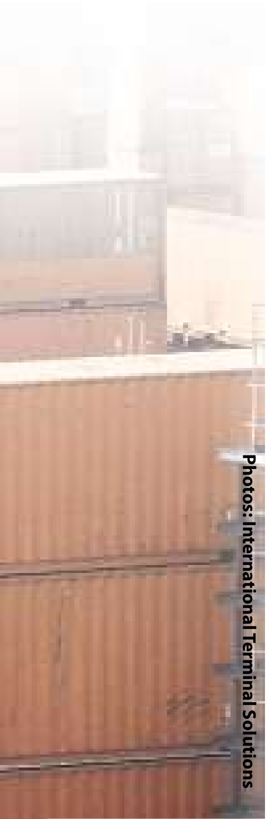
It is a disturbing fact that container shipping is the only sector of the industry in which the actual weight of cargo is not known. Although container manifests clearly state how much a stuffed container in transit should weigh, the figures are often unreliable and based on false or inaccurate declarations made by packers and consignors trying to cut costs. In severe cases, overweight or incorrectly declared boxes can account for 10% of all cargo on board a vessel.

The consequences for safety can be disastrous. In 2007 the MSC *Napoli* started to break up and was grounded off the southwest coast of England. The misdeclaration of the weight and contents of the ship's containers was found to be a contributory factor in the accident, said a report by the Marine Accident Investigation Branch. In February of that year, the 868teu *Annabella* narrowly avoided a major accident when a stack of seven 30ft containers collapsed, with the top three carrying butylene gas.

Apart from having consequences on shipping, overweight containers can affect safety across the supply chain, including dockside operations and road and rail haulage. Although most of the industry now agrees that the problem needs tackling, questions that continue to be hotly debated include who takes responsibility for the verification of weights, who pays for it and where it should be done.

In December 2010, the World Shipping Council (WSC) and the International Chamber of Shipping (ICS) upped the stakes with a joint plea to the IMO to establish an international legal requirement that all stuffed containers be weighed at marine port facilities before stowage aboard a vessel for export. A joint statement said: "Weighing a box after it has sailed and been unloaded at the import port does not protect the port workers handling the container or the ship or its crew... and weight data derived at the import port after vessel

Integrated technology… International Terminal Solutions' weighing system links in with the TOS



unloading cannot be used in proper vessel planning. [Without a legal obligation on ports] a substantial number of containers will continue to go unweighed."

However, focusing on the port phase of a container's journey misses the point, believes Richard Bird, executive director of the UK Major Ports Group (UKMPG): "The optimum solution is surely for weights to be verified at the point the container starts its journey; clearly, if containers are overloaded there are safety issues for road users before the port is reached. The IMO should consider the entire supply chain."

Chris Koch, president of the WSC, believes it makes more logistical sense to weigh at a hub, such as a port. He said: "It's a lot easier to put in scales at choke points, like port terminals, rather than the thousands and thousands of facilities where containers are stuffed."

If terminals are asked to take on container weighing as part of their operations, which prevailing industry opinion seem to indicate is likely, many will baulk at the idea of having to foot the bill for new equipment and software, plus associated staffing and training, especially those facilities in less developed countries without adequate infrastructure or investment.

"We are not part of the root cause of the problem, so why should we pay?" asked Dennis Lenthe Olesen, chief operating officer of APM Terminals in Europe. "Shippers are responsible for declaring to customs the correct weight of their containers and if there's any mismatch then they are liable towards customs, so in that sense they should also carry the cost of the weighing."

Some operators may look to recoup upfront investment by offering container weighing as a value-added service to shippers, or by charging to redistribute loads into extra containers, said Llew Russell, CEO of industry body Shipping Australia: "Costs will be passed down to the shipper in any event, one way or the other."

Placing liability for container weighing on operators raises other issues. If terminals also become liable, which shippers are pushing for, they will have to take out extra insurance. "Putting both the cost and liability on us would not be fair," added Lenthe Olesen.

Container weighing in ports adds a new layer of complexity to terminal operations, increasing the potential for delays depending on where and how it is carried out. Many operators are already short on space, so having to install a new truck weighbridge at the entrance gate, for example, could be disruptive. To many, weighing containers 'dynamically' on a spreader on the dockside might make more sense. Then there is the issue of what to do when there's a mismatch between a container's actual weight and its declared weight – how do you communicate this information to the terminal operating system (TOS)? Where does the container go? What happens to customs documentation now that the declared weight is inaccurate?

Some technical solutions are available. UK-based International Terminal Solutions (ITS) has developed a software system for yard handling equipment that measures container weights and instructs drivers on where to pick up and drop containers based on information relayed by the TOS.

Weight information recorded from a load cell installed on a reachstacker or RTG crane is sent to the TOS. If the measured box weight is outside the weight class declared on the manifest, the TOS reschedules and the driver is instructed to drop the container in a different yard location. "It's a dynamic system, so delay is very minimal, and the software includes other back-office functions, such as re-billing customers," said ITS managing director Richard Lambert.

Port equipment manufacturer Bromma last year launched an innovative compact load sensing system, available as an option fitted to twistlocks on its spreader cranes. Bromma says the system is capable of verifying loads even when lifting two 20ft containers in twin mode, and can be fitted to RTGs or other mobile vehicles.

Initially intended to help operators identify dangerous lift situations, the technology has recently experienced a wave of interest from terminals interested in verifying weight, said product development head Lars Meurling: "The WSC-ICS announcement in December stirred up a lot of interest. We just shipped 13 twin-lift electric spreaders equipped with the technology to Santos in Brazil."

Forecasting an end to the container weighing dispute is difficult. The issue will be debated at the IMO's 89th Maritime Safety Committee (MSC) meeting this month and at the 27th IAPH World Ports Conference (see box). The MSC told *P&H* that a final decision could be agreed by the IMO by early next year. PH

Photos: International Terminal Solutions

A load cell is installed on the terminal equipment and alerts the driver if a container is too heavy

On the agenda at IAPH Busan

The IAPH Secretariat and Committee is aware of the potential impact container weighing could have on its members. It is therefore hoping that a resolution can be drawn up at IAPH Busan this month so that the standpoint of the international ports industry can be presented to the wider shipping industry.

Optimal operations

Ports wishing to compete in the emerging economic environment should aim to maximise every element of their operations, reports *P&H*

Container cargo currently accounts for 20% of Port Metro Vancouver's annual throughput

Be it yard space, equipment or technology, making the most of what's available is essential if ports and terminals are to benefit from the heralded increase in container traffic. Drewry Maritime Advisors forecasts global container throughput to grow to 718.5M teu in 2015 from the 586M teu that has been estimated for 2011.

"In the really long term – say 20 years – the world population will be around 8Bn, up from 5Bn to 6Bn now," said APM Terminal's CEO Kim Fejfer. More importantly, in those 20 years the middle class will grow from today's 1Bn to around 2Bn, he said. "So in a relatively short time, the population that buys the things we ship in containers will double."

Port Metro Vancouver (PMV) is one port that is looking to maximise on its existing facilities' space to meet projected container volumes. It believes that its container traffic will double over the next 10 to 15 years, and nearly triple by 2030. In 2009 it saw a decline in container growth of 14%, but this went up 17% in 2010 and in 1Q/2011 container volumes were up by about 12%. The port's vice-president of planning and development, Peter Xotta, said that, based on these figures, the predicted growth increase is conservative. In response, Vancouver has embarked on its Container Capacity Improvement Program, to meet the intermodal growth expected by 2030. The programme, said Xotta, should help 'de-bottleneck' the port and improve its efficiency.

The programme consists of two main elements. One is the development of Roberts Bank Terminal 2 – an additional multi-berth container terminal that would provide 2M teu extra capacity to the port every year.The second element involves continuous identification of operational improvements at its container facilities in the Lower Mainland, including: opportunities to use technology, working with government on the Asia-Pacific Gateway and Corridor Initiative (see *P&H* May 2010, p18) and investing in upgrades of facilities, such as mobile crane equipment at Deltaport and extra cranes for rail loading.

In addition, Vancouver's Deltaport Third Berth Project was completed in 2010 and saw that terminal's potential increase by 50% from 1.2M teu to around 1.8M teu.

According to Xotta, it is all about being sustainable. The port needs to develop, but it needs to link the port's economic activity with the well-being of people, he told *P&H*. He added: "We don't have a lot of available land. We will need to increase more with assets that we have." Technology, he noted, will play a part in achieving these goals.

Port Metro Vancouver's Vanterm container terminal (above) and Deltaport (right)

Richard Harrison, managing director of maritime solutions at Zebra Enterprise Solutions, agrees that technology will be the key driver in enabling ports to increase their container capacity. Yards will not physically change, he suggested. "Trends in the future will be about optimising the use of equipment – how you integrate it all together," he told *P&H*.

In the short term, maximising on a container port's handling capabilities does not necessarily require heavy investment in new technology and additional capacity. "Good maintenance – corrective and preventive – leads to high uptime," said Lars Meurling, equipment manufacturer Bromma's vice-president for marketing and product business development. Corrective maintenance is too late, he said, and the best way to limit downtime is to identify potential problems before they become real problems: "Some terminals in Europe have adopted preventive maintenance strategies, which is producing higher MMBF [mean moves between failure]." One company has managed to boost its MMBF from 1500 to 4000 through analysis of spreader faults, said Bromma.

Initial costs may be higher, since you change parts when they are approaching the end of their cycle, but, Meurling questioned, how much does it cost when a ship is delayed in its berth by one hour because of spreader downtime? He also noted that spreaders receive the most wear and tear and account for 60% of terminals' downtime.

Not all ports are created equal and each has advantages over the others. But for ports wishing to capture anticipated container volumes it seems they will have to maximise on all their capabilities and play to their strengths. PH

Photos: Port Metro Vancouver

Stay alert to scanning

Ports and terminals may have to factor in another layer of operation if the US government proceeds with its 100% scanning legislation, which may re-emerge in the Senate for debate this year. Andrii Kuzmenko, the director of TIS container terminal at Odessa, Ukraine, said: "It affects all the terminals that have ships sailing to the US, even if there are intermediary ports on the way." These ports and terminals should closely monitor developments and consult with shipping lines, he told *P&H*.

At the moment there is no agreed definition of the term "scanning" in relation to the legislation. Both radiation detection and X-ray scanning are possibilities, and ports and equipment manufacturers alike have been racing to find solutions.

Kuzmenko believes that 100% radiation detection is certainly feasible, as "there are numerous solutions on the market, including spreader-mounted and gate-mounted options". He continued: "Producers of the former are pushing for 'service-based' contracts; for example, they will charge per container as opposed to normal sale of equipment. Terminals may oppose this arrangement and it could lead to the appearance of local solutions. So current manufacturers must be more flexible and offer equipment for sale." Ports with ships sailing to the USA "should actively check for available alternatives and encourage local high-tech equipment producers to develop solutions," he recommended.

Total X-ray scanning before the end of 2012 will not be possible, he asserted. "X-ray capacity is very far from covering the total US consumption of imported goods. Taking into account the fact that scanners are usually government customs' property, their purchase and installation is quite a cumbersome and lengthy process."

Partnerships for profit

One port model draws from both public and private expertise and has a broader focus that extends beyond revenue. *P&H* reports

On the face of it, public interest and making profit are not natural bedfellows. Investment in 'softer' issues, such as integrating the port with the community, greener hinterland logistics and general port development – tasks that usually fall to the port authority – are not necessarily the prime concerns of hard-nosed, streamlined private companies.

This is one reason why a government-run port authority with privately run terminals has proved one of the most successful port models. Known as the landlord port model, it aims to balance profit-making with its responsibility to local communities and stakeholders. Wholly private ports would look to slim the workforce and maximise its profits, *Ports & Harbors* was told by Neil Davidson, senior adviser, ports, at Drewry Maritime Advisors. The more streamlined you become, the fewer people you have and the less you can do – particularly on the 'softer' issues, he asserted.

In effect, the landlord model separates out the two responsibilities and draws upon the best elements of the private and public sectors. Drewry has been consulting Port of Gothenburg as the port leases its terminals to private operators and adopts the landlord port model. In February, it signed a 10-year agreement with logistics provider Logent to operate the car terminal. Port CEO Magnus Kårestedt told *P&H* that under the new model the authority can "focus entirely on developing the port and the infrastructure whilst the terminal companies are the experts in running terminals as efficiently as possible. In this way the Port of Gothenburg can become more competitive, thus promoting growth and employment at the port." He added: "Another advantage of private operators is that they are part of international networks, which is

All in trust

Plans to privatise the UK ferry port of Dover – currently a trust port – galvanised the local population into an unusual course of action: they launched a community bid to buy the port.

In early December, Kieran Ring, chief executive of the Global Institute of Logistics (GIL), told a briefing of the Dover People's Port Trust (DPPT): "There's something efficient about the power of community." He went on to underscore the importance of building a network of private-sector partners. DPPT chairman Neil Wiggins supports this statement and told *P&H* it is most important that the trust adopts commercial attitudes and approaches to running the port.

"We have core competency within the trust in terms of port and harbors management; most of the Dover management team will remain. It'll be new ownership and a new direction and emphasis, but we're not going to throw the baby out with the bath water," said Wiggins. DPPT proposes to redirect some of the port's profits into regenerating the town of Dover. It argues that private owners, with shareholders to answer to, are unlikely to countenance this.

The UK's ports are unusual in not adopting the landlord port model that is widely used elsewhere in the world. Its ports were fully sold by the government in 1984 and since then they have been operating as private, trust or municipal authority ports.

A trust port is controlled and administered by an independent self-governing body, with no shareholders or owners. Any profit that is generated is put back into the port for the benefit of the port's stakeholders. Matthew Gore, an associate at global law firm Holman Fenwick Willan, told *P&H* that trust ports can struggle to find funds for expansion because they are classified as public corporations.

"This has probably been the greatest impetus behind the privatisation at Dover," he said. He explained that, by privatising, a trust port would be able to fund expansion as any other company would. "It has been reported that the [UK] government made it quite clear that it would not allow Dover to borrow the amount of money it would take to deliver Terminal 2, and therefore private-sector involvement would be needed in order to deliver it." Regardless of trust port privatisation, Gore believes there is an urgent need to review some current trust port borrowing limits, "to allow them to develop with appropriate levels of cash reserves and the power of compulsory purchase".

Municipal ports are owned by the local authority and a local councillor is usually responsible for its running. These ports sometimes operate under the landlord model – such as the oil terminal at the municipal port of Sullom Voe .

Photo: Shutterstock

Build-operate-transfer… Laem Chabang in Thailand has adopted this type of concession

something that will reinforce the competitiveness of the Port of Gothenburg."

The notion of being part of an international network can also be extended to terminals run by primarily state-owned operators, such as DP World and PSA. Drewry's figures suggest that in 2009, 54.2% of container movements were undertaken by such companies. Shipping lines – AP Møller Mærsk's APM Terminals and CMA CGM's Terminal Link, for example – have also invested in terminals. According to Davidson, the advent of increasingly large ships drove lines to invest in their own facilities that could accommodate the vessels and cargo and, looking forward, volumes are recovering and lines are making more money. Shipping lines will "need to guarantee access to capacity in key places," he said, They see it as good business in its own right, he asserted.

Chris Lowe, a partner at law firm Watson, Farley & Williams' office in Singapore, believes that for shipping companies, investment in ports is all about controlling costs and profiting from logistics. "The assets are so linked to gross domestic product growth and will perform better again as the world moves out of recession," Lowe added. "Historically, even in the recessions, port operators made money whilst container lines lost money."

"Comprehensive privatisation remains an exception and is not a preferred option for major ports," said the World Bank in its Port Reform Toolkit, which analyses port models. Drewry's Davidson believes that there is still a place for this model in certain scenarios, because private companies can make faster decisions, as they have easier access to capital and a more entrepreneurial attitude. He believes the fully private model is at its best when applied to single-use ports, where the owner controls everything, such as energy terminals with refineries and additional infrastructure nearby. In contrast, he said, landlord port authorities should "generate enough revenue to ensure long-term sustainability, but not be a profit maximiser".

Jim McCaul, head of maritime consultancy company International Maritime Associates, is of a similar opinion. He supports the private concept in relation to transhipment hubs: "Where an investor wants to make the full investment, including all supporting infrastructure, then why not support it if the government gets a royalty?" However, if a port is the gateway to a country, he warns port authorities to be cautious: "Whoever gets control of the port gets control of the country," he told *P&H*.

Forms of public-public partnership (PPP), such as build-operate-transfer (BOT) and build-own-operate-transfer (BOOT), are another way for government-run ports to benefit from private money and expertise. India has put great emphasis on BOTs and BOOTs in recent years (see *P&H*, March 2010) and Hutchison Port Holdings is one operator that has a BOT agreement with Laem Chabang in Thailand.

The World Bank summarised the current state of play in the Port Reform Toolkit: "Each [type of agreement] is designed to mobilise private capital while balancing public and private interests. Governments' views about ports are evolving. Increasingly, ports are considered separate economic entities, although still subject to national regional and local planning goals. As such, they should operate on a commercial basis. By the same token, subsidies for port infrastructure construction, especially for port land, quay walls, common areas and inner channels, should be avoided."

Many options are available to governments today, but it is difficult to ascertain when the gradual privatisation – either fully, or partly by way of terminal leases – of ports across the globe began. APM Terminal's director of external communications, Tom Boyd, agreed that it was difficult to pin down a date, but noted: "The ease of outsourcing to the private sector when public funds become tight and the efficiency of the private sector to execute were appealing to city planners." PH

More info: http://rru.worldbank.org/Documents/Toolkits/ports_fulltoolkit.pdf; www.drewry.co.uk and www.imastudies.com

Typical container port ownership and operating structures

Mode of ownership	Land area	Terminal infrastructure	Terminal superstructure (cranes/yard equipment)	Quayside operations	Landside operations	Examples
100% state-owned and operated	State-owned	Owned and constructed by port authority	State-owned	Port authority	Port authority	Durban (South Africa)
'Suitcase' stevedores	State-owned	Owned and constructed by port authority	State-owned	Private stevedores (common berths)	Port authority	Shuwaikh (Kuwait)
Leased terminal	State-owned	Owned and constructed by port authority	Privately owned or rented from port authority	Terminal operator	Terminal operator	Oakland Container Terminal (USA), ECT (Rotterdam)
Concession agreement	State-owned	Owned and constructed by port authority	Privately owned	Terminal operator	Terminal operator	Port 2000, Le Havre (France), Santos Brasil (Brazil)
BOT concession	State-owned	Construction privately funded	Privately owned	Terminal operator	Terminal operator	Laem Chabang International Terminal (Thailand), JNPT (India)
100% privately owned	Privately owned	Privately owned	Privately owned	Terminal operator	Terminal operator	Teesport (UK), Liverpool (UK)

Source: Drewry Annual Review of Global Container Terminal Operators, 2010

Private perspectives

Regions have developed different relationships with the privatisation model. ***Jem Newton*** and ***David Worwood*** report for *P&H*

Photo: Southern Cross Maritime

Cruising to Brisbane… Carnival Australia fears that many cruise ships will be unable to reach the new Portside cruise terminal

Australia emphasises planning

Australia's National Ports Strategy has recommended long-term co-ordinated planning of ports, land transport corridors and shipping channels. "Better co-ordination of those activities will help to improve productivity and attract greater private-sector investment," said the strategy's authors Infrastructure Australia (IA) and the National Transport Commission.

The strategy document, released late last year, also called for greater transparency and less red tape in order to streamline port development. It pointed out: "Much of the future investment and operation of the ports will rely on the private sector… Optimal private investment and use of these [assets] depends on all levels of government providing certainty of their intentions, for example on provision and use of port lands, and road and rail systems."

Michael Deegan, infrastructure co-ordinator at IA, told *P&H* that since the port of Brisbane was recently privatised "the general issue of ownership is a live one in the Australian debate". There is speculation that the new state government in New South Wales may reassess ownership arrangements for its own ports.

"In terms of overseas experience we are interested in the international lessons learnt, including China. Australia has much to learn internationally and the ports strategy is in part focused on the international experience in masterplanning and benchmarking," Deegan commented.

A new deepwater bulk port at Oakajee in Western Australia (WA) is planned by private companies Mitsubishi Development and Murchison Metals. At James Point, also in WA, a private consortium aims to build, own and operate port infrastructure and provide port services. A bulk and general facility and a container terminal are proposed.

However, with the previous Labor state government supporting a separate plan for government-funded port facilities in the same area, the A$422M ($450M) private project has been held up for a decade. Despite this, in late February, media reports indicated that the state government was setting up a taskforce to help resolve the issues.

In a submission to IA last May, James Point Pty Ltd suggested that the National Ports Strategy should adopt a planning timeframe of 50+ years and should pay more attention to determining the process of securing investment from the public and private sectors. "At present this is a very *ad hoc* process, leading to uncertainty for the investor… private-sector investment should not be seen as being limited to investing only in equipment and leases [but also land and berths]."

In Australia, there have been occasions when private port infrastructure has attracted criticism – mainly stemming from poor planning and arguments over competition and high prices. One example is the new privately owned Portside cruise terminal in Brisbane, whose upriver location puts it out of the reach of larger cruise ships. Carnival Australia chief executive Ann Sherry has criticised the high charges levied and in its submission to IA last year, the cruise operator declared: "Carnival Australia expects two-thirds of visiting cruise ships to Brisbane will be unable to dock at Portside by 2020." PH

All change at Lattakia

"A quantum leap" was how the CEO of Lattakia International Container Terminal (LICT) in Syria characterised the changes since its take-over by a CMA CGM-led consortium in mid-2009. "In 12 months we went from organised chaos to a management function that has a terminal within a boundary, yards for import and export and an up-and-running terminal operating system that is completely computerised," Russell Mitchell told *Ports & Harbors*.

He described the situation before the consortium was in charge, when LICT was run by a state-owned shipping agency: "There was no security, the containers were dispersed throughout the port, with different shipping lines running their own container stacks. There was fly-tipping, and box movements were based on notes written by the shipping lines." Until 2009, Lattakia port was also plagued by congestion, overmanning and bureaucracy.

Although the international operator streamlined the workforce and introduced more efficient operations, red tape remained an issue. "We did a due diligence on the terminal before we took over, but didn't take account of all the support organisations like customs that had no input but had a massive effect on the terminal in terms of restricting access," Mitchell commented.

LICT faced considerable bureaucratic hurdles as it tried to attract more transhipment cargo, Mitchell reported. "The only way we can increase throughput at both Lattakia and Tartous is transhipment. Despite LICT now being a secure facility, to get approval from customs we had to build another fenced yard with gates inside the terminal for transhipment that's not even destined for Syria. Anywhere else in the world, you'd just have a stack that gets loaded when the ship comes in," he said.

"We are having problems during the privatisation process. If you have to change a law to privatise a port terminal there are so many different interests involved and they're also hesitant because this is the first time it has happened. We're entrepreneurs and that's why we're here to take the decisions and carry responsibility," Mitchell said.

Another method of increasing efficiency is by accommodating larger container vessels. LICT has submitted a proposal to the Syrian transport ministry to deepen alongside to a draught of 15.5m to take super-post-Panamax vessels and to reinforce the quays. "We're also looking at fendering; the quay here is a sedimented construction, so you can't dredge any deeper without weakening the base of the wall," Mitchell said. He has also asked the Lattakia port authority to deepen the access channel and turning circle. PH

> "The terminal is now more efficient"
>
> **Russell Mitchell**
> *CEO, Lattakia International Container Terminal*


Photo: Jem Newton

China keeps control

As Asian and other newly industrialising economies continue to outpace their established western counterparts, can the developed world glean any lessons about port ownership and development funding? China's distinct brand of state-sponsored capitalism is not limited to its worldwide trading strategies. It clearly also applies to ownership of key domestic infrastructure, such as ports.

China usually prefers to maintain a majority share in its ports, often through complex holding arrangements. This not only allows the government to keep control, but it ensures that most of the profits stay at home.

While welcoming foreign capital into port projects such as Qingdao's expansion, China has on occasion kept much of the growth advantages for itself. One example is the Yangshan port project near Shanghai, the second phase of which included investment from APM Terminals and a Hutchison Whampoa subsidiary, while later phases lacked overseas participation. This strategy ensures that the ultimate benefits – public or private – are retained by the host country. PH

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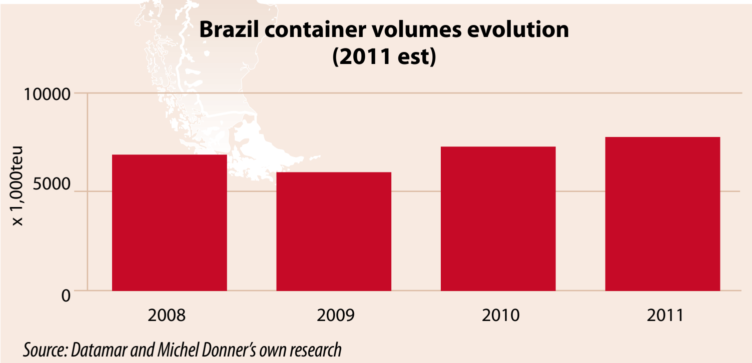
Concessions for capacity

South America is experiencing a burgeoning import and export trade and needs to increase its capacity fast. Public-private partnerships are being developed to help make this a reality, reports ***Michel Donner***



Brazil container volumes evolution (2011 est)

Source: Datamar and Michel Donner's own research

The South America region has, with few variations, adopted the landlord port model, where port authorities and governments provide infrastructure, timely capacity adjustments, maritime and shoreside access, regulation and supervision. Operators are selected mostly through fair, open public tenders.

While most analysts agree on optimistic economic growth forecasts for the region, a recent attempt to map container terminal concessions and projects in Latin America revealed a worrying situation in 2010. It seemed that almost every country in the region had at least one troubled port project. The list of problems includes a concessionaire expropriated; two international operators breaking camp; one tender without bidders; one tender with only one bidder; one tender process impeached by an incumbent competing concessionaire; one completed terminal without an access road; one completed terminal without an operator for more than two years.

Callao, the biggest Peruvian port, is expected to handle close to 2M teu by 2015. One of its terminals is the new DP World Muelle Sur concession with a capacity of 850,000teu per year.

To cater for this expected growth the Peruvian government had prepared for the tendering of Muelle Norte. The tender process was stranded in legal disputes over whether or not DP World should be allowed to bid, as it was feared that it could result in a private monopoly within the region. In early April, APM Terminals was awarded the concession.

In pre-crisis 2008 the Brazilian container terminals network was already straining to cope with the volumes it had to handle. Similar volumes returned to Brazil in 2010 and the country's teu throughput is likely exceed 8M by 2012. No significant additional port capacity has been commissioned in the interim.

Additional capacity that could absorb the volumes and solve the congestion is planned, but it is not ready yet. Two projects in Santos totalling 1.5M teu – Brasil Terminal Portuário (BTP) phase 1 and Embraport phase 1 – are due to be completed in 2013 and 2012 respectively. Itapoa's TSC phase 1, which would provide 300,000teu is ready, but lacks an access road.

Santos, which alone handles 31% of Brazil's maritime foreign trade, is expected to pass the threshold of 3M teu in 2011. The growth will take place against a backdrop of difficult operational conditions induced by space and berth shortages.

Despite early warnings and sincere efforts, the Brazilian port system has not been able to provide the needed extra capacity on time.

A landmark dredging programme, championed in 2007 by the then minister of ports Pedro Brito, will provide water depths down to -15m in the main Brazilian ports. While not adding extra capacity, it certainly contributes to major economies of scale and efficiency gains in keeping with trends of the maritime transportation industry elsewhere. This will positively affect the south Atlantic maritime landscape.

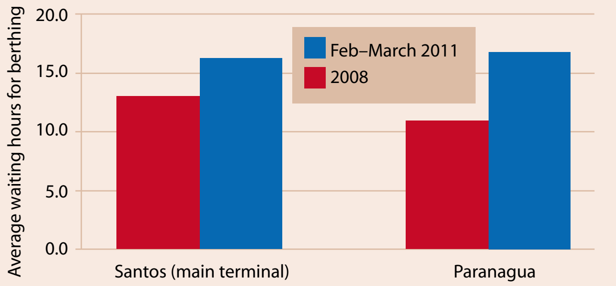
Private and institutional investors recently demonstrated a strong appetite for investing in Brazil's port infrastructure. In January the equity fund Advent took 50% ($480M) participation in the TCP container terminal in Paranaguá, enabling it to expand its congested facilities. In December 2010, the Inter-American Development Bank approved a $100M loan to finance the Embraport project in Santos. This loan will be coupled with a large syndicated loan from international commercial banks in excess of $400M. Earlier in 2010, APM Terminals and Terminal Investment Ltd (TIL) formed a joint venture and together will manage BTP. In March BTP won an International Finance Corporation syndicated loan of $679M.

But why so late? Two main inhibiting factors are at play here, which have slowed down the decision and execution processes: the long licensing times and a degree of legal uncertainty.

The BTP project, for example, which has a complex environmental component, has been on the drawing boards since January 2007. Administrative licensing is also cited as a significant delaying factor. However, new management at Brazil's environmental agency, IBAMA, has decided to set up task forces in specific areas to accelerate analysis and licensing.

Like other countries with developing ports, Brazil has embraced private entities either as a concessionaire in a public port under the landlord model, subject to public tendering, or as a private port or terminal. In Brazil the latter was especially conceived for big mining or oil companies to handle their own production on their own installations. A subsequent interpretation of the port law of 1993 led to the concept of mixed private installations, which are allowed to handle a certain amount of third-party cargo. A decree of 2008 enforced a restrictive interpretation of the issue, but, in the meantime, three container terminal projects had been launched: Portonave in Itajaí, Itapoa in Santa Catarina and Embraport in Santos.

Berthing delays, Brazil, 2008–11



Source: Aliança and Michel Donner's own research

Two of the projects have been built and it is unlikely that they will have to be dismantled. On the other hand, there is an element of unfair competition when, in a given port, competing private terminals do not have the same liabilities and costs: paying for casual labour, for example. This uncertainty is a cause for hesitation for potential investors. It needs to be clarified in a way that does not inhibit future private initiatives to develop badly needed port facilities.

Port projects typically take from two to five years to complete. Economic growth and investors' willingness are prerequisites to develop a country's port system. To translate these favourable elements into concrete infrastructure in time to meet the demand, the proper legal framework needs to be in place, to ensure the agility and clarity of the concessioning processes. The tendering conditions should clearly reflect the common goals intended for both authorities and concessionaire. Providing clear rules in a level playing field should reinforce the adherence of all stakeholders to the tendering process. PH

Michel Donner is an adviser and consultant in the ports and maritime industry. In writing this article he has drawn from data provided by ports, operators, government agencies such as ProInvest, Antaq and Emporchi, industrial and trade associations such as FIESP, ICC, and international institutions such as UNCTAD and the World Bank

Sweet investment

Photo: Shutterstock

Brazilian agricultural agency Conab forecasts a 15% increase in sugar exports for the 2010–11 season reaching 25.4M tonnes, following last year's exceptional harvest. Santos is by far the major outlet for sugar exports from Brazil. The peak of the season takes place in Q2 and Q3, overlapping with the soya campaign.

In Q3/2010 unprecedented queues of up to 60 vessels waited at anchorage to operate at the Santos berths, many of them to load sugar. Waiting times for berth varied from one week to 21 days. The country's port installations could not handle the upsurge in sugar exports. The situation was exacerbated by exceptional rainfall – 120 days of rain, compared with the average of 90 days – and the ongoing dredging campaign.

Cosan (whose logistics arm Rumo Logística boasts the world's largest maritime sugar terminal, located in Santos) is investing $36M in two devices that will allow operations to continue regardless of the weather.

One consists of a fixed metallic structure 138m long and 76m high, enabling Panamax and Capesize bulkers to operate in rain inclinations up to 41°. The other is best described as a cantilevered tensile canopy structure that will be able to protect vessels in winds up to 72km/h and in any rain inclination.

This investment is expected to boost the Rumo sugar terminal's annual capacity by 25–30%. The structures will be ready for the 2012 peak season.

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Developing
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Umm Qasr is the most suitable and least vulnerable of Iraq's southern ports from which to develop an import/export trade and supply the country's reconstruction projects. ***Jem Newton*** reports

The seaport of Umm Qasr will be linked to a dry logistics centre inland

Few ports have seen more dramatic changes in the past decade than Umm Qasr. The deepwater port was badly damaged during the 2003 war and since then has been the main conduit for humanitarian relief supplies in bulk to Iraq's civilian population. It has huge potential as the largest port in the northern Gulf and would be a suitable candidate for the kind of 'gateway' development model successfully adopted elsewhere in the world. But a gradual return to normal trading conditions at the port has been hampered by congestion, ageing equipment and a primitive and bureaucratic management system.

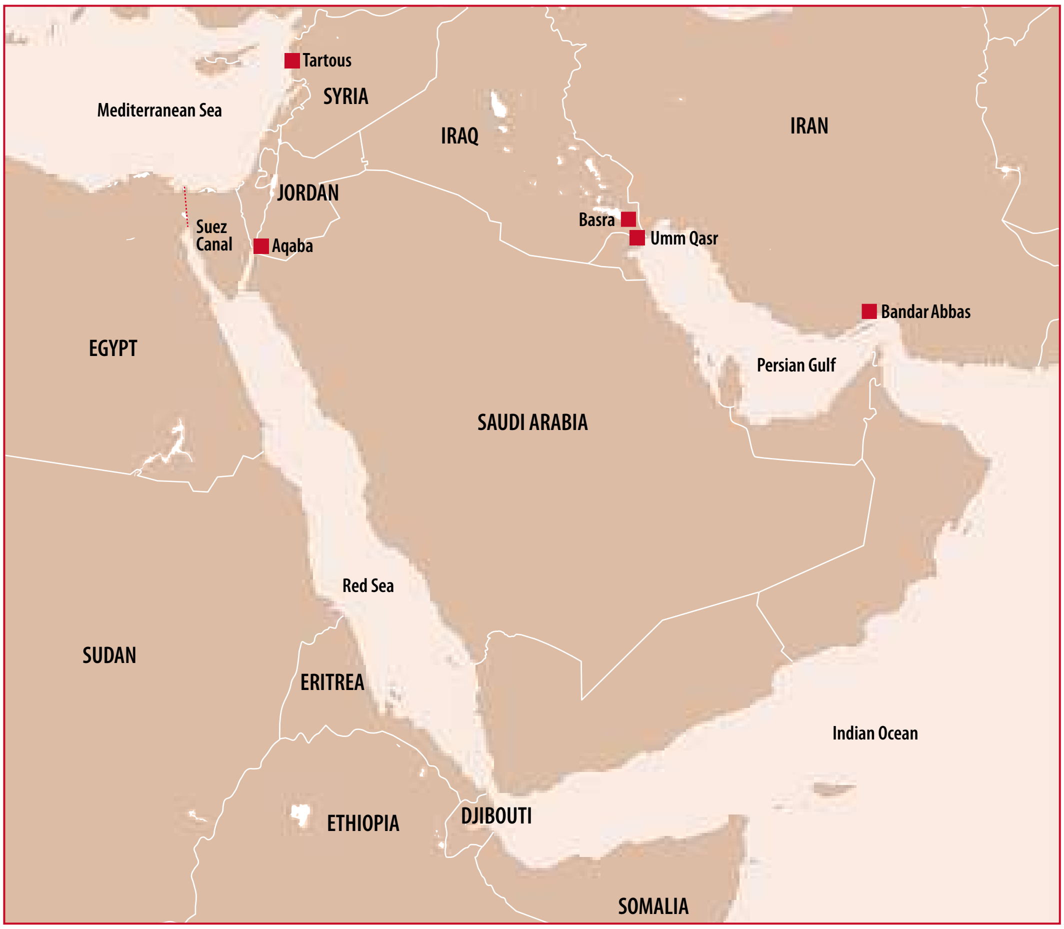
A major player is Emirates-based Gulftainer, which in early 2010 was awarded the concession to operate Berth 8 and is now developing a container terminal at Berths 10 and 11, as well as a dry port. Operations at Berth 8 have been greatly improved by the arrival of a pair of Gottwald mobile harbor cranes late last year.

The two berths of the Iraq Container Terminal are expected to become operational later this year and will be serviced by four ship-to-shore gantry cranes, enabling the terminal to handle large box ships with greater efficiency than is possible at the port's other multipurpose berths. "Our experience in the port within the last few years has been one of increasing growth and improving productivity under the direction of the management of Iraqi Ports Authority," group project manager at Gulftainer, Bill Chalmers, told *P&H*.

He said the dry port – called the Umm Qasr Logistics Centre – would be built on a 120ha plot just north of the maritime port at an estimated cost of $150M. The park will include five refrigerated and unrefrigerated warehouses and is the first step in improving the logistic infrastructure to upgrade Iraq's transport system. "We are envisioning a logistics park with added-value services. The centre will initially be road-based, but there is a provision in the master plan for the integration of a rail hub at a future date when the Iraqi rail network is fully functional," said Chalmers.

Also involved in the infrastructure project is Jordan-based Nafith Logistics, which develops systems to control and speed up the flow of land-based freight. It has already put into operation a sophisticated freight-flow system to regulate truck traffic around the Red Sea port of Aqaba, and Nafith is now planning a similar project at Umm Qasr.

"We are at a point where formalities are still being worked out and haven't been able to get a firm date on when we can start," Nafith's chairman, Sameer Mubarak, told *P&H*. "We now know what needs to be done in Umm Qasr. It's slightly different from Jordan, but we see there are more or less the same issues that need



Umm Qasr: Iraq's outlet to Asia and Africa

high-end logistics events handling beyond the port."

"In Umm Qasr, there are a few special issues that are not present in any other port that also pose a challenge to our development. One of them is the security situation as well as the need to co-ordinate government cargo *versus* private-sector cargo," he added.

"This infrastructure project is of great importance as it links Iraq commercially with the world through the 'dry channel' that the company will establish," said Gulftainer's commercial director Keith Nuttall. Chalmers added that the construction of a railway between Iraq and the Syrian ports of Lattakia and Tartous was also part of the dry channel project announced by the ministry of transport. This would give Iraq new export routes to Europe and the eastern American seaboard that bypass the Suez Canal.

Development of oil- and gas-related logistics is another key aspect of the infrastructure improvements. Oil minister Abdul Kareem al-Luaibi said earlier this year that revenue from Iraq's oil exports has been held back by a lack of export terminals. This year, oil exports have returned to their highest level since before the 2003 war and are expected to rise further when an offshore terminal in Basra, Iraq's southern oil hub, is opened at the end of this year, al-Luaibi said. But more export capacity is needed and Chalmers said that in the immediate future there will be a considerable need for oil-related logistics at Umm Qasr.

The government is also negotiating with international companies on a project to increase production of gas for both domestic consumption and export. Severely rationed electricity and power outages have served to inflame further the protests that continue to test the country's fragile political stability, so the government wants to build more gas-fired power stations to increase electricity output.

A discussion is under way about whether the main gas exporting facility should also be at inland Basra or at deepwater Umm Qasr. Apart from the latter's suitability to accommodate larger oceangoing vessels, expanding energy exports from Umm Qasr would reduce the country's dependence on the vulnerable port of Basra, which is located on the disputed Shatt al-Arab waterway that marks the border with Iran. PH

> It's slightly different from Jordan, but we see there are more or less the same issues that need high-end logistics events handling beyond the port
>
> **Sameer Mubarak,** *chairman, Nafith Logistics*

Competing for trade

Ports on the Mediterranean have to differentiate themselves if they want to keep their clients, reports *Andrew Spurrier*

The figures tell the story. Morocco's Tanger Med increased its container throughput by 68% last year to 2.06M teu and says it expects another "significant progression" in container throughput this year. On the other side of the Gibraltar Strait, Spain's Port of Algeciras Bay saw its container throughput fall by 7.64% to 2.81M teu – and that in a year of strong recovery in the international container trades.

The two ports' results appear to be a perfect demonstration of the latest shift in the balance of power between Mediterranean container transhipment hubs and, more particularly, of the growing competition in the sector between European ports and their lower-cost North African counterparts.

Port operators warn against oversimplification, however. Tanger Med's gain is not necessarily Algeciras's loss, nor that of other Mediterranean container hubs. After the initial fright created by the opening of the first Tanger Med container terminal in 2007, the Port of Algeciras has begun to take a more measured tone towards its Moroccan rival.

"Even though the new competition scenario in the Strait of Gibraltar sets high demands, the Port of Algeciras Bay is making efforts to meet customers' real needs," a port spokeswoman told *P&H*. She pointed to the top-class nature of its facilities and handling equipment, indicating that it was able to accommodate any vessel that container line operators care to bring to it.

Most significantly, in May last year, Hanjin Shipping opened the Total Terminal International Algeciras (TTIA) container terminal, which, with an annual handling capacity of 1.6M teu, is billed as the first semi-automatic terminal in the Mediterranean.

Algeciras's competitive relationship with Tanger Med is blurred, moreover, by the fact that its principal terminal operator, APM Terminals, also operates one of the two container terminals currently in service at Tanger Med. Martin Poulsen, head of APM Terminals Europe, acknowledged that the two ports had produced contrasting performances last year but insisted there was no intention on the group's part to run down its terminal in Algeciras in favour of the one in Tanger Med. "Just because we happen to own both of them does not mean that the relationship [between them] would be different if they had different owners," he said. "They have to compete."

They served the same market, he said, and the group followed the same strategy in marketing them. He indicated that it was the group's clients that made the choice between them. "Clients go where they get the best product-price mix," he said. "For 2010 certainly, they favoured Tanger Med much more."

For APM Terminals the two sites are complementary. They form part of the group's Mediterranean transhipment terminal network, which also includes Port Said East in Egypt, where capacity is in the process of being doubled, and Gioia Tauro in southern Italy.

The network will be added to in 2015 when the group is due to open a new terminal in Vado, northern Italy. Poulsen indicated that the group's choice of location for new terminals was essentially customer driven. "Location is obviously critical," he said. "If you can get to where the vessels are moving anyway, it

Port of Algeciras aims to meet its customers' needs as it competes with Tanger Med

Photos: Port of Algeciras Bay Authority

is more attractive for clients. This is especially true in the east and west Mediterranean." As for the future, he said the group had no plans to open new terminals in the Mediterranean but again indicated that the final choice was likely to lie with its clients. "I think we will have to wait and see," he said. "We do not have anything on the drawing board right now but, if clients have a need, we will do our best to try to meet it."

Terminal operators generally appear to be taking a wait and see approach to the development of new Mediterranean transhipment capacity at the moment as they wait for the container shipping market to settle after last year's record recovery.

Although Tanger Med is still expanding, it is significant that the phase-two development of its container port, which is currently in progress, has been left to local operator Marsa Maroc, which replaced Singapore's PSA as operator for the future Terminal 4. Terminal 3, which was to have been conceded to APM Terminals, was put on stand-by with no indication yet as to when it might be built.

Elsewhere, work is continuing on already launched terminal extensions at Port Said East and Damietta in Egypt, but prospects for the launch of the new hub project at Enfidha in Tunisia look uncertain. There is, nevertheless, sufficient new capacity already under construction to pose a serious competitive challenge to transhipment ports on the European side of the Mediterranean. The issue is a concern to the European Sea Ports Organisation (ESPO), where some members believe European hub ports such as Malta Freeport, Gioia Tauro and Algeciras are handicapped in their efforts to resist competition from their southern Mediterranean rivals by a tighter regulatory and fiscal framework and stricter planning procedures.

"The same rules and regulations do not apply on the other side of the Mediterranean," said ESPO secretary general Patrick Verhoeven. He said the problem concerned port authorities more than

Photo: APM Terminals

Our Mediterranean ports have to compete with each other, said APMT's Martin Poulsen

operators, who were not concerned about which side of the Mediterranean their terminal was on provided it made operational and commercial sense.

"Ports are concerned about the traffic they are losing," said Verhoeven. So is the European Commission, which raised the issue in its port policy communication of 2007 even if, according to Verhoeven, its capacity to police port development and operation on the southern bank of the Mediterranean is limited.

Short of being able to impose EU regulatory conditions in the southern Mediterranean, he said, it had opted instead for a 'carrot and stick' approach, attaching conditions to the aid and co-operation it offered to the countries concerned.

The objective, he said, was less to create an impossible level playing field covering both sides of the Mediterranean and more about trying to ensure that all parties were at least playing in the same ball park. He added that the EU could not content itself with blaming southern Mediterranean countries for the problems faced by its own ports. Noting particularly the speed with which new ports such as Tanger Med were developed when EU ports often found themselves bogged down in lengthy and complex planning procedures, he said: "Instead of blaming, perhaps we should make things more efficient on our side." PH

The TTI container terminal (far right) and APM Terminals (right) at Algeciras

Onshore power gathers pace

Last year, Susann Dutt, manager sustainability at Gothenburg port, Sweden, wrote about the onshore power supply (OPS) element of the World Ports Climate Initiative. She reported that 96% of WPCI member ports were considering introducing or expanding OPS within the next decade (*P&H*, March 2010, p28). One year on, *P&H* asked her about progress made to date.

Dutt explained that a major input to the WPCI project has been a website that explains to ports and ship operators the benefits of investing in technology that allows ships to switch off auxiliary engines while in port, reducing air pollutants, carbon dioxide emissions and noise.

"By letting people learn more about the technology, we hope that will kindle their interest so that they go on to carry out feasibility studies for their ports," she explained. Dutt added that Gothenburg is conducting feasibility studies with a view to all its terminals introducing OPS. Hitherto, 'green shore power' has been installed at berths used by companies that have regular ro-ro calls at Gothenburg, such as the forest products company Stora Enso. Vessels engaged on Stora Enso's trade use OPS berths at other ports too, such as Lübeck, Kemi, Oulu and Zeebrügge.

Per Wimby, Stena Line's technical operations manager for Scandinavia, explained it was logical for his company to install OPS first in Swedish ports where there are the greatest cost benefits and better energy alternatives such as hydroelectric and wind power. In addition to Gothenburg, OPS had been installed at the port of Karlskrona, he told *P&H*.

"Also, Trelleborg will probably go live at the end of this year. One hurdle is that some ships have 60Hz as standard whereas ports generally run on 50Hz, so we have been obliged to build a converter at Gothenburg, which I believe is the first in Europe," he said. Norway has also begun to show some interest, at the port of Oslo. Wimby also said ISO standards for OPS were in place and a final draft on standards was being circulated.

Outside Scandinavia, however, most European ports have been rather slow to invest in onshore power supply. A notable exception is the Port of Antwerp, which started OPS trials for deepsea container ships at the ICL terminal in the early part of 2009. In February this year, Antwerp launched a trial project to supply free onshore power to commercial barges for the rest of 2011 with the aim of stimulating its wider take-up among these operators.

Photo: Port of Gothenburg

"We hope by letting people learn more about the technology they go on to carry out feasibility studies for their ports" – Susanne Dutt, Port of Gothenburg

The Port of Rotterdam recently agreed to lay out the berths at its Maasvlakte 2 extension so that onshore power can be easily installed. "Onshore power can be an effective measure, but will only be realistic when a worldwide standard has been agreed and onshore power is introduced by more ports and shipping operators," the port authority said in a statement.

Eelco den Boer, senior researcher at Netherlands-based research and consultancy organisation CE Delft, which helped develop the OPS website, commented that environmental groups had exerted a lot of pressure on the port to introduce emission-reducing technologies as part of its expansion, to allay local misgivings about the effects on air quality of an enlarged port. "It's quite an expensive technology, but Stena Line, for example, will save a lot of money at its new ro-ro terminal through reduction of fuel use," he told *Ports & Harbors*.

One reason for Rotterdam's caution stems from a feasibility study it commissioned, which estimated a cost of €4M per berth to retrofit OPS at its current berths. The cost at Gothenburg was only a fraction of this figure – €255,000 for two berths – because a high-voltage power supply was already in place and the ro-ro vessels that Gothenburg accommodates have quite limited power requirements.

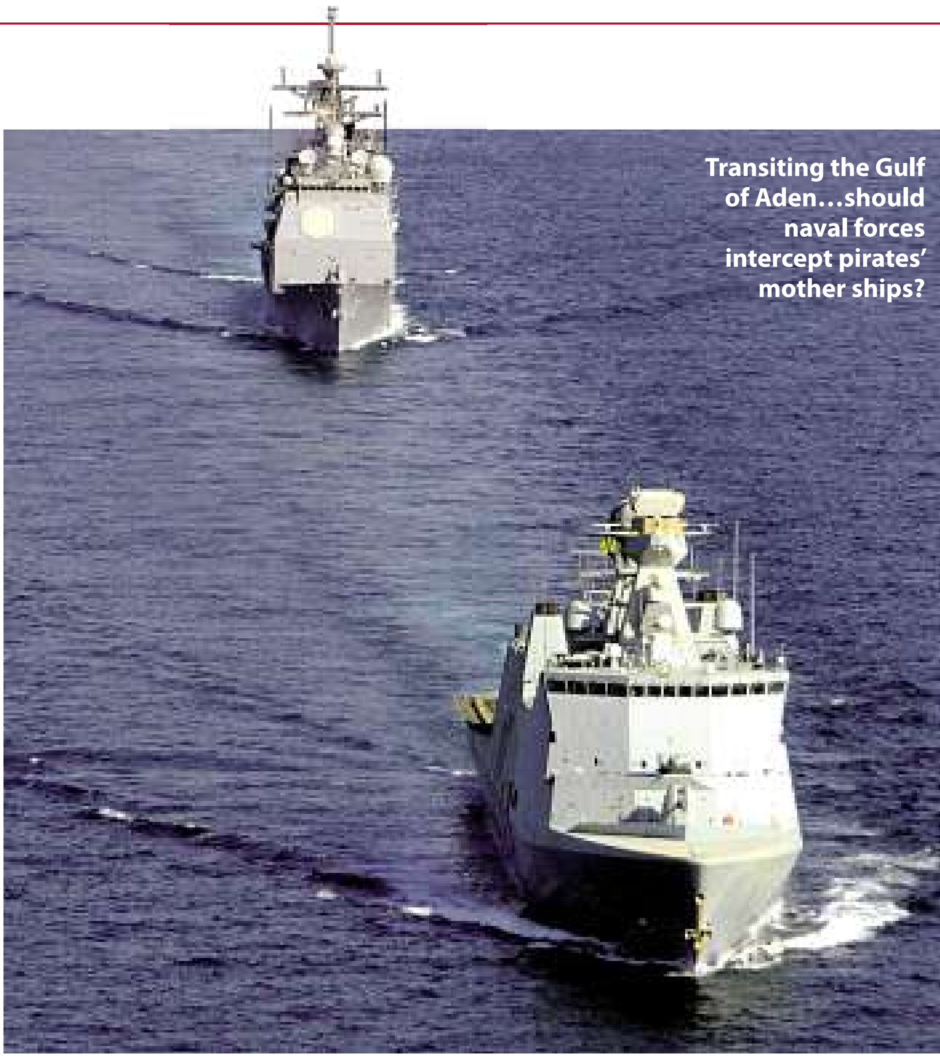
"Rotterdam also did a feasibility study on the container terminals for the Maasvlakte2 project. The difficulty is that the bigger ships call a maximum of 15 times a year so the investment is not so cost-effective," den Boer added. He said that the Dutch government had offered subsidies to encourage ports and operators to adopt OPS and a subsidy was also offered belatedly by the Belgian authorities to the ICL trials at the Port of Antwerp.

"In Sweden we are hoping for a tax exemption or reduction on electricity and of course that would help improve the cost-effectiveness for a shipping company in developing OPS technology," said Dutt. Wimby said the proposal has been approved by the Swedish government but has yet to be approved by the European Commission. One thing in the proposal's favour is that several years ago the EC announced that European Union member states should encourage use of OPS by offering favourable electricity tariffs to their ports and shipping lines.

If renewable energy is used as a power supply in ports, near-zero emissions of all kinds of air pollutants can be achieved, the OPS website explains. Studies suggest that the average carbon dioxide emissions from the so-called EU energy mix are around 50% lower than emissions from auxiliary diesel engines. However, while coal-fired power plants emit more CO_2, they emit lower quantities of nitrogen oxides compared with those associated with ship engines burning diesel with a 0.1 or 2.7 % sulphur content, lower particulate matter and lower sulphur oxide emissions compared with diesel with a 2.7 % sulphur content.

Onshore power has also had a big impact at the US west coast ports that have adopted a clean air action plan in the past decade. The Port of Los Angeles is expected to have equipped 16 berths with OPS by the end of this year, for example, with another 10 berths active over at the Port of Long Beach during the same period. Asian shipping lines trading with the west coast have also been proactive, with deepsea majors such as Evergreen Marine, NYK and "K" Line having introduced OPS-equipped newbuildings to their fleets since 2005.

More info: www.ops.wpci.nl



Transiting the Gulf of Aden…should naval forces intercept pirates' mother ships?

Photo: US Navy

Talking tough on piracy

The shipping industry is urging governments to launch a sweeping, high-risk military response to piracy. "The number-one priority is the mother ships," International Chamber of Shipping chairman Spyros Polemis told the Connecticut Maritime Association (CMA) conference in March. The use of hijacked vessels as mother ships has dramatically expanded the pirates' attack range in the Indian Ocean, overwhelming naval patrol capacity.

Polemis detailed a proposal for naval forces to employ propeller-fouling nets to disable hijacked vessels being used as mother ships. This would have the advantage of minimising the danger to captured crew, he suggested. This strategy – which he believes could be put into effect later this year – would "have to be very comprehensive and all-encompassing". It would not be sufficient to target only certain mother ships.

Polemis said that pirates could be compelled to leave crew unharmed aboard immobilised mother ships in return for their own lives. "If they harm the crew, naval forces would board the ships and kill the pirates. Therefore, I think the likelihood is that the pirates will leave."

"Seafarers are going to be caught in the crossfire. That's inevitable," warned International Registries managing partner Clay Maitland (speaking personally at the conference and not on behalf of the Marshall Islands flag).

"This is not going to have a Walt Disney ending. This is going to be messy," Maitland predicted. But Polemis argued: "Seafarers are being shot in cold blood and tortured. There's no way we can allow this to continue. We have to take the risk."

Two constituencies have to be convinced if the mother-ship counter-strike is to proceed: the owners, whose crew and vessels may well be endangered, and the governments of all the countries involved.

Support is not unanimous in the industry. V. Ships president Roberto Giorgi told *P&H* that he does not agree with disabling mother ships. Rather, he favours a plan for naval forces to tail mother ships and prevent pirate skiffs from leaving them. "There may be some resistance, but I think that, overall, shipowners will not object," said Polemis. The more difficult lobbying task will be to convince governments. Not only would the plan endanger crew, it would put troops in harm's way, risking domestic political backlash. "At the moment, the navies do not have the political OK," Polemis conceded.

Military forces do have political approval to disable hijacked commercial ships that are at anchorage in Somali waters, but Polemis opposed this strategy. "I think it's a terrible idea. The ships have to be disabled on the high seas, not in Somalia," he insisted. If disabled at anchorage, crew would become shoreside hostages and vessels could not be recovered (nor ransomed for the crew's release). The mother-ship plan is just the first step in a multi-pronged strategy. Step two, after the mother ships are disabled, would be a "blockade" of the Somali coast, said Polemis.

Shipowners have been adopting strategies of their own, with many scrambling to employ private security for Indian Ocean transits. "The sentiment has swung very dramatically in just the past few months as impatience with the piracy issue continues to grow," US Coast Guard Admiral Kevin Cook told the CMA conference.

BIMCO chief security officer Giles Noakes voiced concern about the surge in popularity of this strategy. He estimated that only 5–10% of transiting vessels currently employ armed guards. "If you employed four-man teams on 50% of the transits through the Indian Ocean, that would require well over 6,000 professionals; they just don't exist," he argued. Noakes also warned that widespread use of private security guarantees an escalation in violence. "I can assure you that if there is a proliferation of armed guards, there's going to be firefights in the Indian Ocean on a daily basis," he cautioned.

Peter Chalk, a piracy analyst at Rand Corporation, said: "Some large operators may go to contracting with private security companies, and that may be rewarded by smaller premiums on their insurance, but for smaller operators, pirates will continue to attack them, I'm afraid."

In another development, it appears that seafarers themselves are taking their safety into their own hands.

The International Transport Workers' Federation warned on 25 February that shipping companies might face accusations of corporate manslaughter if they continue to route vessels through waters frequented by pirates. The ITF said that it is moving ever-closer to advising seafarers to consider avoiding working in all the affected areas – including the Indian Ocean.

"If that were to occur, then the public and the world needs to know that 40% of the world's oil supply is shipped through the Arabian Sea through the Strait of Hormuz to the rest of the world. That's how serious this is", Intertanko MD Joe Angelo told *P&H*.

Taxing bunkers or emissions?

Bunker data is too easy to fiddle, claims naval architect Jack Devanney. Simply relying on buyers or sellers of bunkers to provide accurate data for carbon dioxide calculations will not work, he believes.

In his paper *Direct taxation of ship-based CO_2 emissions* for his Centre for Tankship Excellence (CTX), Devanney argues that a bunkers-based carbon tax "cannot be feasibly implemented". He is not opposed to taxing carbon dioxide emissions, however, and his paper's opening sentence states: "The only effective, efficient and safe alternative for reducing CO_2 emissions from ocean shipping is a tax on CO_2 emissions."

Current proposals to tax bunker fuel oil rely on collecting the tax from either ships or from bunker suppliers. "But so far no one, to the CTX's knowledge, has said exactly how this will be done." In Devanney's view, "the reason this has not been done is that it *can't* be done". Either option would rely on the delivery ticket, and "both buyer and seller [would] have an immense incentive to produce paperwork that understates the amount of bunkers transferred… The opportunity for collusion is inescapable." It would, he claimed, require many "incorruptible fearless third-party inspectors at every bunkering".

Instead, Devanney advocates monitoring exhaust gas emissions themselves, which he believes can be monitored to an accuracy of better than +/-3% "in a reliable, tamper-proof, difficult-to-spoof manner for about $50,000 per ship". This is being done on land, he said, and "highly competitive technologies" are available to achieve this using off-the-shelf equipment that has been type-approved by regulatory bodies.

He proposes that the data from the sensors would go direct to the IMO, with no dependence on the ship, supplier or inspector. "There will be no forgery," Devanney said, "for there is no paper to forge."

"It really does not matter who pays for the [$50,000] monitoring system, but I think it would be better to make the shipowner fully responsible for installing and maintaining the system," he told *Ports & Harbors*. Even if "we stubbornly stick with a bunkers-based tax", he said, emissions data would prove valuable as a check. "If the stack emissions did not match the delivery ticket claims, then an investigation, and presumably fines, would follow."

In July the IMO's Marine Environment Protection Committee will meet to discuss the Energy Efficiency Design Index, which, if implemented, will measure ships' emissions.

More info: www.imo.org; www.c4tx.org

CMA CGM's new online tool can calculate its customers' carbon footprints

Photo: Frederici Bolignini

Eco-calculator for CMA CGM customers

From April CMA CGM Group customers have been able to access its eco-calculator. Available online, it offers a calculation of the "carbon footprint of a journey, based on real data including points of departure and arrival, volume of freight, fuel consumption and vessel speed".

The calculator was developed according to Clean Cargo Working Group methodology and verified by Bureau Veritas.

"Our new tool is extremely reliable and means we can now supply customers with very accurate data about their carbon footprint. We hope this eco-calculator will prove a useful tool in the decision-making process and will help customers to determine the optimal mode of transport from an ecological point of view," said Philippe Borel, environment director for the CMA CGM Group.

Untried Rotterdam Rules leave industry guessing

The effectiveness of the Rotterdam Rules will not be known until they are in force, tried and tested and applied to court. This was the message from solicitor Richard Williams of Swansea University at a Maritime Business Forum in London on 10 March. They are an "untried" set of rules he told delegates and in his opinion do not meet their stated aim. The question he put to the delegates was whether we keep the current "imperfect" system, which is out of date, or replace it with an untried imperfect system. We do not have the luxury of knowing either way, he asserted; we have to decide now.

Donald Chard, head of legal and documentary at the Chamber of Shipping, sees the rules as a chance to implement new provisions that cater to contemporary needs. He said in a paper delivered at the event: "If this chance is lost, the result will be a return to the disunity that prompted the need for the original Hague Rules. That must not happen." The creation of the Rotterdam Rules has resulted in a series of compromises between the various parties, such as carriers, ports and shipowners, but Chard believes that the new rules have fulfilled their obligations. "Tension between the different interests mean that all have had to concede some points, but the resulting compromises will equally have given something to everybody," said the paper.

The Rotterdam Rules, officially called the Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, will come in to force one year after 20 counties have ratified them. Spain ratified the rules on 19 January, with the USA and certain Europe countries working towards it.

Photo: Dietmar Hasenpusch

Tougher US ballast water permits address invasive species

New US ballast permit settled

The US Environmental Protection Agency (EPA) was party to a court settlement in March that will significantly tighten ballast water rules for vessels calling in the USA.

Conservation groups had filed suit in 2009, alleging that the EPA's vessel general permit (VGP) to control incidental discharges in US waters did not sufficiently address invasive species.

Since 2009, all ships entering American waters have been required to comply with the VGP, which sets out best practices, training and documentation rules for 26 types of incidental discharge, including ballast water, deck runoff, bilge water and greywater. The new VGP will include concentration-based effluent limits for discharges of ballast water expressed as organisms per unit.

The EPA is directed to focus on both technology-based and water-quality-based standards, although there is an allowance to opt for a single standard if it determines that numeric limits for the other are "infeasible to calculate". The enhanced VGP enters into force in January 2014.

The revised regime sets out the monitoring requirements for all ships calling in the USA, and requires data to be transmitted electronically to the EPA and made publicly available.

The new permit will also include a 'reopener' clause that allows for its interim modification in the event that treatment technology evolves or if "the cumulative effects of any discharge on the environment are unacceptable".

The EPA must post a draft of its revised VGP for comment by 30 November and finalise the new permit a year later.

On 13 March the United States Coast Guard started policing VGP compliance on behalf of the EPA, by incorporating permit oversight into its inspections. As *P&H* went to press, there had yet to be any confirmed VGP enforcement action against shipping.

IAPH CREATES TSUNAMI RELIEF FUND

The IAPH Secretariat has been flooded with messages of condolence and sympathy since the devastating earthquake and tsunami hit northeast Japan on 11 March. IAPH would like to send its sincere thanks to members for their heartfelt messages sent to the victims and survivors of the disaster as well as inquiring about the safety of the IAPH Secretariat staff.

Leonids Loginovs, chief executive officer, Freeport of Riga Authority, Latvia, and member of the IAPH Executive Committee, recently wrote to Secretary General Naruse suggesting a fund-raising effort to assist Japanese ports, port workers and their families in the devastated area. He pledged to make a contribution of $10,000.

P&H readers wishing to make a voluntary contribution can find details at: www.iaphworldports.org/IAPHEarthquakeTsunamiReliefFund.aspx

At this link you will also find details of a bank account to which you can send your contribution. Please make the donation easily identifiable by referencing it as 'Earthquake'.

Alternatively you can send a cheque made payable to the International Association of Ports and Harbors (see website for address). The IAPH Secretariat will then send all received donations to the Japanese Red Cross.

Singapore offers shipowners a tax break

Shipping companies will be automatically exempted from withholding taxes when taking out a qualifying foreign loan to buy or build a foreign- or Singapore-flagged ship, Singapore's finance minister Tharman Shanmugaratnam, said. This is one example of a tax benefit under the country's new Maritime Sector Incentive. Further details were to be announced this month, but it is hoped that the scheme will make shipowning easier for Singapore's maritime players.

Lim Peng Huat, director of Singapore tax advisory Complete Corporate Services, said that the 15% withholding tax applies to interest on loans taken from a non-resident lender, if the other country is not part of a double-taxation treaty. It is hoped that the policy change would boost Singapore's ambition to be a leading maritime centre.

Toh Boon Ngee, a tax partner with KPMG Advisory LLP, said the move would encourage more shipowning in Singapore. She said: "The automatic withholding tax exemption on qualifying loan interest payments will indirectly lower the financing costs. This will be attractive to industry players, as these financing costs are typically substantial in the maritime industry in view of the significant quantum of loans involved."

Tan Lee Khoon, a tax partner with Ernst & Young Solutions LLP, explained that shipping companies had to apply to Singapore's finance ministry to be exempted from such taxes in the past. She said: "Before this change, withholding tax exemption was granted on a case-by-case basis, which meant that a specific application would have to be made for each loan. The change eliminates this burden of having to make applications on a case-by-case basis."

Photos: Ports of Auckland

IAPH in Auckland

Four port forums, one regional meeting, a port tour and the gala dinner were all on the agenda at the regional meeting in New Zealand

Thirty-three IAPH members from the Asia & Oceania region met in Auckland from 9 to 11 February to discuss industry and association matters. This included a one-day port forum hosted by Ports of Auckland, which was introduced by New Zealand's minister for Transport, the Hon Steven Joyce.

Chaired by Grant Gilfillan, CEO of Sydney Ports and IAPH 2nd vice-president, the first port forum focused on the supply chain. First to speak was comptroller and CEO of New Zealand Customs Service Martyn Dunne, who highlighted the need for partnership between ports and the authorities on a national level and also NZCS's work with the World Customs Organization. Nigel Jones, general manager of Supply Chain Strategy for Fonterra, a New Zealand dairy company, followed by setting out what shippers expect from ports as part of the supply chain; he cited international competiveness, sustainability, lowest absolute cost, reliability and security. He added that they need to enable and support shippers in realising their goals.

Maersk New Zealand's country manager, Julian Bevis, told delegates that a high level of customer service is one way that shipping lines can differentiate themselves from competitors. Productivity is important, he said, adding that it is essential to minimise time spent in port so that lines can ensure reliable and on-time services – and it helps bring down fuel costs too, he pointed out. To attract lines, a port needs to be competitive on both rates and productivity. If it cannot offer productivity, it can only compete on price, he asserted.

Captain David Padman, general manager (regulatory) at Port Klang in Malaysia, chaired the next session, promoting IAPH's commitment to environmental sustainability. IAPH managing director for Europe Fer van de Laar started the debate with an update on the World Ports Climate Initiative (see page 36), taking an in-depth look at two of the initiative's projects: the Environmental Ship Index and onshore power supply. He mentioned three further topics that have been proposed, namely low carbon fuels and fuel-based approaches, alternative power (wind and solar, for example) and cost benefit analyses.

Rick Boven, director of the New Zealand Institute, summarised the likely effects of climate change on business. He explained that, whereas from an economic perspective the attitude towards the environment is that the "future will be an extension of the past", from an ecological perspective "the future will be different from the past".

Next to take the floor was Ben Chrystall, general manager for port structure at Ports of Auckland, who provided an overview of the port's channel deepening and Ferguson reclamation project. Of the reclamation project, he said: "In a surprising variety of ways, this project has demonstrated sustainable outcomes. Importantly, sustainability has been demonstrated both financially and environmentally, and these two drivers have been consistent."

Capacity was addressed next, with chair Jens Madsen, former CEO of Ports of Auckland, asking delegates what key factors ports should consider when building capacity. First to speak was Shane Hobday, general manager of safety, security and the environment at Sydney Ports Corporation, who highlighted the changing relationship between the city and its port. He said that the port's community is now more informed and has high expectations regarding information that the port puts out. The community knows its rights and will stand up for them, he added. As a result, the port frequently consults with the community by means of open days and structured meetings.

Professor Tava Olsen, from the University of Auckland, explored how the "use of pricing, and perhaps other mechanisms, [can] smooth demand from periods of load to offload". She told delegates: "The primary distinction between traditional marketing and revenue management is found in the dynamic, operational way in which revenue management is practised. Whereas marketing may define products and market segments, revenue management tracks demand by its willingness to pay and adjusts price and/or inventory availability for these

Familar faces and new acquaintances: the New Zealand event attracted many high-profile speakers and port representatives

products and market segments. As a result, revenue management makes extensive use of the tools of operations research, statistics and computer science in addition to traditional marketing science."

David Padman followed with an overview of Port Klang's initiative to overcome the global downturn. He cited initiatives taken by the Malaysian government such as adopting "supply-driven strategy" investments in the port and its focus on enhancing the port's efficiency and productivity levels. He also drew attention to the port's links with other countries as well as its own national hinterland links.

The final forum considered risk and was chaired by 2 deputy director (policy) Manjit Singh of Singapore's MPA, who guided discussion on protection and security, especially in relation to natural disasters. Martin Byrne, CEO of New Zealand's Port Nelson, gave an overview of the port's community risk management in specific relation to noise, dangerous goods and methyl bromide. To engage with local residents more readily on these topics the port has implemented open days and school and community visits, developed a visitor centre and training room, formed relationships with local primary schools, and kept in contact with the media.

Lyttleton Port of Christchurch's CEO Peter Davie gave a topical presentation on recovery after the earthquake. He offered some valuable advice on insurance: keep it current, get the best you can afford and record everything. From a personnel perspective he said that you need to keep the key people at the port and that in these times of disaster, "engineers are worth double the accountants and lawyers". He also commented that long-term supplier relations pay dividends during times of crisis.

Finally, Masahiko Furuichi from the Port and Airport Institute in Japan discussed tsunami warning and protection measures in place in the Asia and Pacific region. He referred to a number of structural countermeasures, including tsunami gate systems and dykes, and also showed how tsunamis can be simulated to help gain an understanding of the possible effects, from large to small scale.

The next day, members attended the IAPH Regional Meeting and were taken on a tour of Port of Auckland. PH

More info: www.iaphworldports.org

Photos: Shutterstock

Regional meeting shows the way to go

Secretary General Susumu Naruse reported a busy term since the mid-term board meeting in Savannah in June last year. Several reports have been released: *IAPH/AAPA Survey Results – Impacts of Climate Change on Seaports* and *Ports and Economics,* were both completed by the Port Planning & Development Committee, along with *Survey on Water Quality Control* by the Port Environment Committee.

The secretary general updated the meeting on the current compilation of the Study on Port Community System (PCS). He reminded delegates of the Essay Contest 2011 and Information Technology (IT) Award 2011 and also drew their attention to IAPH's communication tools, noting the recently redesigned website and the revised format of the annual report.

The meeting was informed of the result of a vote of confidence that took place in November 2010 as a result of which Grant Gilfillan, 2nd vice-president of IAPH, was unanimously elected to serve as 1st vice-president for the 2011 to 2013 term, representing the Asia/Oceania Region, though subject to confirmation by the meeting of the board of directors at the forthcoming Busan Conference.

Dr Yeong Jin Yeon, director general of Busan Port Construction Office, Ministry of Land, Transport & Maritime Affairs, made a brief speech on behalf of the Korean government inviting the participants to the conference. Hochul Park, representing Busan Port Authority, gave a presentation on the current status of preparations.

The meeting decided that the regional meeting in 2012 should be held in Sri Lanka and hosted by the Sri Lanka Ports Authority (SLPA). Dr Priyath Wickrama, chairman of SLPA, expressed his appreciation.

Kyong Ha Lee of the Korea Container Terminal Authority (KCTA) offered to host the 2013 meeting in Gwangyang, Korea, and the offer was noted by the meeting.

Dates for your diary

A selection of forthcoming maritime courses and conferences

May

23–27 The 27th IAPH World Ports Conference – Busan, Korea
www.iaph2011.kr

June

6–8 BIMCO General Meeting – Vancouver, Canada
http://gm.bimco.org

7–9 TOC Europe – Antwerp, Belgium
www.tocevents.com

20–24 Seminar on Dredging and Reclamation – The Hague, Netherlands
www.iadc-dredging.com

22 Port Finance & Investments 2011 – London, UK
www.millenniumconferences.com

22–23 9th ASEAN Ports and Shipping 2011 – Ho Chi Minh City, Vietnam
www.transportevents.com

22–24 XX Latin American Congress of Ports – Lima, Peru
www.aapa-ports.org

29–30 The 4th European Short Sea Congress – Hamburg, Germany
www.navigateevents.com

August

15–17 Logistics of the Maritime Transportation of Dangerous Goods – Malmö, Sweden
www.wmu.se

New committee vice-chairs chosen

Captain K Subramaniam, marine operations manager at Port Klang Authority, Malaysia, was appointed vice-chair of the Port Safety and Security Committee by President Gichiri Ndua on 23 February. Captain Subramaniam is hardly new to IAPH, because he has attended a number of IAPH conferences and recently served on some of the association's technical committees. He will be assisting committee chairman Shane Hobday of Sydney Ports Corporation.

Arley Baker, deputy executive director of communications at Port of Los Angeles, was appointed on 15 March by President Gichiri Ndua as vice-chair of the Committee on Communication & Community Relations. Baker, an experienced public relations professional, will bring his substantial expertise to the committee chaired by Monica Bonvalet of Grand Port Maritime de Marseille.

Membership notes

The IAPH Secretariat is pleased to announce that the following members joined the association

Associate members

The International Council on Clean Transportation

Address: 1225 I Street NW, Washington DC 20005, USA
Telephone: +1-202-534-1604
Email: galen@theicct.org
Website: www.theicct.org
Representative: Galen Hon, marine programme lead
Nature of business activities: Non-profit organisation carrying out technical research and policy analysis to advance sustainable transportation

Estrada Port Consulting SL

Address: C/ Enric Granados 23, Piso 1, Pta 1, Barcelona 08007, Spain
Telephone: +34 933025107
Email: jlestrada@estradaportconsulting.com
Website: http://estradaportconsulting.com
Representative: Dr José Luis Estrada Llaquet, CEO
Nature of business activities: International port consultant

Korea Maritime Institute

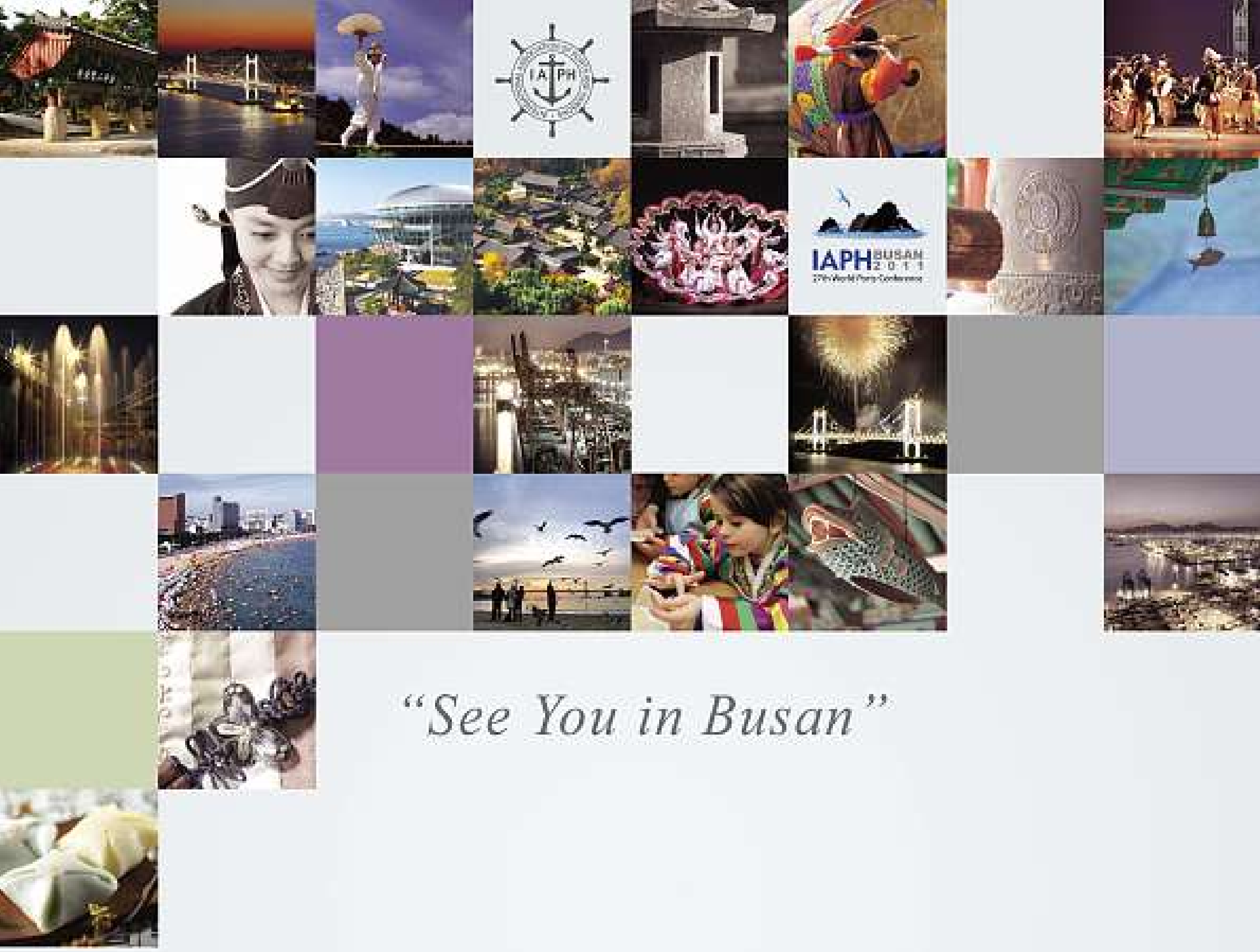
Address: KBS Media Center Bldg, 1652 Sangam-Dong, Mapo-Gu, Seoul 121-915, Korea
Telephone: +82-2-2105-2821
Fax: +82-2-2105-2710
Email: hskim@kmi.re.kr
Website: www.kmi.re.kr
Representative: Hak-So Kim, president
Nature of business activities: Research to enhance competitiveness of the shipping and ports industry and sustainable development of fisheries

dbh Logistics IT AG

Address: Martinistrasse 47–49, 28195 Bremen, Germany
Telephone: +49-421-30-90-2-55
Fax: +49-421-30-90-2-13
Email: sonja.friedrichs@dbh.de
Website: www.dbh.de
Representative: Reimund Ott, Stefan Engels, CEO
Nature of business activities: Operator of port community system in Bremen and Bremerhaven, provider of logistics/forwarding and custom software

Imbibitive Technologies America Inc

Address: 8 Hiscott St, Suite #1, St Catharines, Ontario L2R 1C6, Canada
Telephone: +1-905-641-2323
Fax: +1-905-641-3601
Email: jsb@imbiberbeads.com
Website: www.imbiberbeads.com
Representative: John S Brinkman, president
Nature of business activities: Manufacturer of absorbent and environmental products



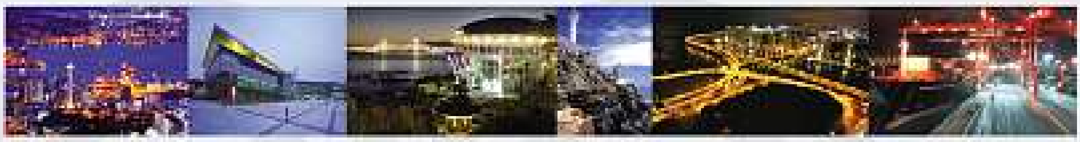



Photo: Jim Wilson

Bringing IAPH together in Busan

Conference vice-president and Busan Port Authority president ***Ki-Tae Roh*** calls for ports to embrace their future and help rebuild the world economy

Busan Port Authority (BPA) is proud to be hosting IAPH Busan 2011. IAPH's aim is to encourage ports across the globe to pool their experiences and address the issues that affect them.

The bi-annual event, as enjoyed in Genoa two years ago, is its main forum for bringing these ports together. BPA has carefully prepared a programme of speakers and topics under the banner 'Embracing Our Future – Expanding Our Scope' that will tackle issues including a port's role in rebalancing the world economy, trends in rail links and logistics, technology and climate action.

South Korea was the venue for last year's G20 Seoul Summit and the region is ready to host another event that requires global and strategic thinking.

Port of Busan will provide a backdrop to the week's debate and towards the end of the week there will be a chance for attendees to visit its impressive facilities, which handled more than 14M teu in 2010. It is the fifth-busiest container port and third-busiest transhipment port in the world and is a significant gateway to northeast Asia. BPA is undergoing substantial change to its facilities as it reshapes and develops the North Port into a prime tourist destination. This is alongside the construction of Busan New Port, which now boasts 18 operating berths.

> Korea's second-biggest city is arguably at its most beautiful during the months of spring

Situated on Korea's southeast peninsula and surrounded by mountainous countryside, Korea's second-biggest city is arguably at its most beautiful during the months of spring. Cherry blossom adorns the countryside and the streets of Busan and the weather is usually mild.

The daytime conference programme has been balanced with an itinerary of charming evening activities during which we hope to introduce you to many of the region's highlights.

Please do come and join us as we support the IAPH mission to engage with our port colleagues across the globe. BPA is very much looking forward to welcoming IAPH members to its shores this May.

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We will set the standard for sustainability in cargo handling,