



PORTS HARBORS

Official Journal of the International Association of Ports and Harbors

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16

A coal terminal at Port of Mundra in west India. In 2012 the port handled 83M tonnes of cargo

Photo: Reuters

September/October 2013
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REGULARS

- Comment:** *Secretary General Naruse* calls on members to assist President Gilfillan as he revitalises the organisation **3**
- News:** Israel plans for capacity increase; Georgia invests in disaster unit; eLoran trialled in UK as back up for GPS **4**
- Open Forum:** SIGTTO's *Andrew Clifton* on the benefits and challenges of using LNG as a fuel for vessels **12**
- Cover Story:** India's private ports take the lead; promising 1H2013 for China; Auckland presents two plans **16**
- Maritime Update:** LNG gets EU funding; pirates attack at anchor; Maritime Labour Convention comes into force **40**
- IAPH Info:** Amsterdam hosts meeting in November; new member; call from technical committee to get involved **44**
- Last Word:** Port of Amsterdam's CEO on why members from all regions should attend the meeting in November **48**

FEATURES

- Barcodes for bananas:** Portsmouth's web-based system keeps track of produce across the supply chain **24**
- Electronic business:** A port's commitment to ebills of lading can be beneficial across the supply chain **26**
- Plug in for progress:** The realities and perimeters for ports considering investment in onshore power **28**
- Does the short cut cost less?** The cost and time differences between the Northern Sea and Suez Canal routes **32**
- Breath of fresh air:** Certain ports have a lot to gain from diversifying into wind power, reveals IAPH report **36**
- Under surveillance:** Tanger Med's system should cut the number of Europe-bound migrants going via the port **38**



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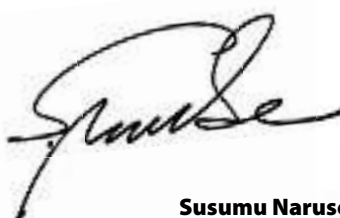
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Changing course

Secretary General Naruse calls on members to
work with President Gilfillan to revitalise IAPH



Susumu Naruse

Secretary General – The International
Association of Ports and Harbors



During his stay in Tokyo for the IAPH Japan Seminar, Grant Gilfillan made an excellent speech expressing his determination as IAPH president to revitalise the organisation. He quoted the founder of Honda Motor Company: “Instead of being afraid of challenges and failure, be afraid of avoiding the challenge and doing nothing.”

He stressed that IAPH must evolve with a changing world; a faster world; a world that only has time for high performance and where everyone’s availability seems so limited. He stressed that, as president, he was determined to work to develop a new path that would increase IAPH’s relevance and global influence.

He pointed out that the environment remains an eminent issue for today’s world and that IAPH has successfully led the global port industry in this area by announcing a variety of manuals and guidelines and constructing ESI through WPCI.

“IAPH has to evolve with the changing needs of the maritime community”

Gilfillan believes, however, that IAPH might need another flagship project in the future – be it port finance, terminal efficiency, or IT application in ports – in order to attract more members. To discuss such important decisions as this he hopes that the board of directors, or at least its core members, can meet more than once a year.

I completely agree. I still believe the environment, in particular global warming, is a key challenge of today’s society. Some researchers have suggested that this has been the hottest decade in history and that global warming has progressed much faster than expected. The Intergovernmental Panel on Climate Change (IPCC) will announce its fifth assessment in 3Q/2013. Those findings are anticipated to be very threatening and alarming.

As the president has suggested, IAPH has to evolve with the changing needs of the maritime community to remain the leading organisation in the global ports industry. I know we can accomplish this under his leadership. In order to discuss this thoroughly, I hope as many members as possible will get together in Amsterdam at the Africa/Europe Regional Meeting in November and in Sydney for the Mid-term Ports Conference next April. Members from all regions are very welcome to attend both events. **PH**

Port updates

E-PASS AT ADPC

Abu Dhabi Ports Company (ADPC) has introduced the 'e-Pass': an electronic system for processing passes for land and seaborne traffic into and through Abu Dhabi ports. With more than 1,500 daily passes and an average of 150 visitor passes handled every day, the new system is expected to significantly reduce processing and waiting times. Advantages are said to include: online customer registration; username/password generation; different gate pass application; document submission; and online status tracking.

LNG IN CHINA

Sinopec, China's second-largest petroleum giant, has started its LNG project with a 3M tonnes/year terminal in southern Guangxi region, it announced on 1 August. The first phase will include an LNG terminal with a design discharging capability of 300M tonnes/year, with the second phase's expected at 6M tonnes/year. Four 160,000m³ LNG tanks will also be built in the first phase, with another two tanks expected for the second phase.

FTZ FOR TAIWAN

Taiwan's Ministry of Transportation and Communications has approved the application for a Free Trade Zone (FTZ) in Anping Port. It will cover 721,000m², including 22 terminals. Once completed, Taiwan will have six FTZ – five ports and one airport. As cross-strait trade keeps rising, Anping Port is facing new opportunities for direct cross-strait shipping – it is only 145nm from Xiamen Port and Quanzhou Port, and 220nm from Quanzhou Port.

NIGERIA SIGNS CHINA DEAL

Nigeria's president Goodluck Jonathan signed loan agreements worth \$1.1Bn during his trip to China in July – the first part of an expected financial agreement worth more than \$3Bn. Osita Chidoka, CEO of Nigeria's Federal Road Safety Corps, expects Chinese investment to go into developing the roads that lead from Nigeria's major port regions. "We've seen growth soar from 300,000teu to 700,000teu since 2010, putting heavy demands on our roads," he said.



Artist's impression: Israel Ports

Hadarom, Ashdod – the government hopes the privately run terminal, along with Hamifratz, will boost competition

Israel seeks private operators

Israel Ports Company published the first stage of an international tender on 3 July for the operations of two new container terminals to be constructed in Haifa and Ashdod adding 1.1M–1.4Mteu capacity. The tender is aimed at global operators who would like to compete for a concession to operate Ashdod's Southport terminal and/or Haifa's Bayport terminals.

"We expect that our ports will approach capacity during the second half of the decade, considering expected traffic growth and changes in our ship mix. With more than 60% of our GDP being trade dependent and 99% of our international trade moving through our ports, Israel's economic growth is dependent on the efficient handling of our trade through our ports," Dov Frohlinger, COO of Israel Ports Company, told P&H.

The planned sites for the new terminals are on reclaimed land and will feature facilities that have been designed to handle Triple-E class vessels, said the company. When construction is finished, the terminals will have two quays with a total length of about 1600m, and maximum depth of 17.3m. "The winning operator will be expected

to complete the terminal development and then equip, operate and maintain the facility for the duration of the contractual period," the company said.

"Failure to increase capacity will result in a return to the congestion experienced a decade ago and will adversely impact on the competitiveness of our export industries in the international marketplace," said Frohlinger. "Such congestion will compound the problem by driving direct calls away from our ports, resulting in our trade being handled by feeders at higher cost and with longer transit times and higher risks.

"With the cascading of vessels on the main lines and considering that the largest vessels that are able to call our ports have capacity of around 9200teu, our ports need to be able to handle larger vessels in order to attract main line calls," he concluded.

Israel Prime Minister Benjamin Netanyahu; minister of transport, national infrastructure and road safety Yisrael Katz; and, minister of finance Yair Lapid, jointly made the July announcement and also agreed on a mechanism that would allow for a decision during the coming three months which

would result in the development of only one of the facilities.

It is hoped the new concessions will end monopolies held by the country's state-run ports. Haifa Port CEO Mendi Zaltzman said in an interview on Israeli television: "There's enough time for real negotiations with the workers' union, and such talks should start as soon as possible. I believe that what really matters is the continuation of the service 24/7, like it is at Haifa port, and I really hope that will continue to be the case if all parties will sit down immediately to find a solution to everybody's worries."

In addition to the operational tender, Israel Ports Company has completed the performance stage of the tender for the construction of the facilities and is issuing a request for proposal for the required works from seven companies that meet the minimum criteria to participate, it said.

This includes breakwater extensions and construction, dredging, reclamation and quay construction work. The company expects work to begin in early 2014.

More info: www.israports.co.il

Alabama sees more steel

Terminal operator Alabama Steel Terminals (AST) will develop a \$36M steel coil handling facility at the Port of Mobile, Alabama. The rail, truck, and barge-served facility will be built behind the port's Pier D2 berth on a 12.2m channel.

ASTs joint venture between Tri-State Maritime Services and the Richardson Group of Companies, will construct a 34,600m² warehouse in two phases, the port said in July.

Under Phase I, AST will build 16,500m² of covered bay area equipped with three 50-tonne capacity overhead bridge cranes and 15,610 m² of open storage yard handling an estimated 650,000 tonnes of steel/year. Phase II will add an 18,000m² bay area with three additional 50-tonne capacity overhead bridge cranes.

James Lyons, CEO of the Alabama State Port Authority,

which oversees the port, said the project is a key piece of a plan to expand the port's steel handling capacity. The terminal "will not only provide benefits to our existing customers, but will attract new shippers through the port", Lyons said. The port has undergone a steady increase in steel throughput in recent years with 1.02M tonnes handled in 2010, 2.86M tonnes in 2011, and 3.6M tonnes in 2012.

Seychelles upgrades Inter-Island terminals

Seychelles Ports Authority (SPA) has completely refurbished the passenger terminal at the Inter-Island quay in the capital, Victoria, on the island of Mahé. Unusually for Victoria, the facility, which includes a restaurant and bar and can accommodate 200 people, will remain open until 11pm on weekdays.

The work comes in response to the growing numbers of passengers travelling by Cat Cocos ferries from the main island, Mahé to the nearby 'Inner

Islands' of Praslin and La Digue, where SPA is also upgrading facilities.

In particular SPA is constructing what it describes as a "state-of-the-art passenger building" on Eve Island, Praslin. Improvement work is also envisaged for the passenger jetty on La Digue.

Seychelles has seen big rises in tourist arrivals over the past few years, which have increased ferry traffic between resorts on the archipelago's 115 islands.

Disaster ready

Terminal operators and cargo handling facilities at the Georgia Ports Authority can rest easier now that their operations are no longer susceptible to a shutdown in the event of a disaster. The GPA recently unveiled a new Mobile Command Center (MCC), a truck-trailer size deployable unit that operates as a backup system from which port personnel can manage their entire operation.

In the case of a hurricane or any other natural or man-made disaster, the satellite-based communications unit ensures that data is safe and port operations can continue. The unit cost roughly \$1.5M and was paid for partly with federal port security grants. "It contains all of the information, records and capability required to operate the port remotely and securely," said Bill Sutton, GPA director of information technology. "The value of this project really is peace of mind for GPA customers."

Built by Farber Specialty Vehicles, the MCC is also a mobile security operations centre that can perform security clearances to allow personnel access to the ports.

GPA executive director Curtis Foltz said having the ability to fully backup cargo operations – including ship loading and unloading, intermodal rail interchange, and gate movement data – grew out of a discussion three years ago. That led to a set of

international trips to look at what other ports were doing. "We didn't find something that would meet our needs here, so I suspect there are few if any US ports that have this amount of redundancy," Foltz told *P&H*. "We're extremely excited to have it."

GPA's investment may start to pay off soon. The National Oceanic and Atmospheric Administration forecasts a 70% likelihood of 13 to 20 named storms, of which three to six could become major hurricanes, during this year's hurricane season – "well above" the seasonal average, said the NOAA.



Port updates

DOUBLE STACK IN PIPAVAV

Pipavav terminal's first double stack high-cube container train left APM Terminals on 17 July, carrying 180teu destined for Container Corporation of India's new double stack hub at Kathuwas in Rajasthan. The double stack rail service was pioneered at the Indian port in 2006 by APM Terminals Pipavav and the Indian Railways. Since then the two companies, along with Gujarat Electricity Board, have worked to clear structural impediments to high-cube containers.

TERMINAL HEALTH

The first major study of health and safety in global network terminals has been published. Conducted by Cardiff University, UK, and commissioned by the International Transport Workers' Federation, it was conducted in co-operation with three terminal operators, including PSA International and APM Terminals. Read the report – *Managing the health and safety of workers in globalised container terminals* – at www.itfglobal.org

NEW PLAN FOR LA

The Los Angeles Board of Harbor Commissioners has approved a new port master plan – the first major update for 30 years. It incorporates amendments and anticipated changes to the use of property within the coastal zone managed by the port. It promotes development consistent with the port's goals of making the best use of its resources, increasing terminal efficiency, accommodating diverse cargoes, increasing public access to the waterfront, enhancing recreational uses and, when possible, preserving the port's heritage through adaptive re-use of historic buildings and sites.

MAERSK BACK TO MEXICO

Specialised Container Terminal 2 in Manzanillo, Mexico, recently serviced its first vessel, the 5,500teu capacity *Maersk Kalamata*. The terminal's operator, Contecon Manzanillo, registered a crane productivity rate of 46.1 moves per hour. The post-Panamax vessel will call weekly at the terminal. The inaugural call also marks the return of Maersk to Manzanillo.

Bought & Sold

HIGH REACH IN SPAIN

TCV Stevedoring Company at Port of Valencia, has received its fourth super post-Panamax crane for operating large vessels up to 22 containers wide. The gantry crane, developed by ZPMC, weighs 1,600 tonnes, is capable of lifting 65 tonnes and is 44m high under the spreader. It has a speed of 180m per minute hoisting empty containers and 90m per minute for fully loaded containers; and a reach of 62.5m on the sea side and 20m on the land side.

NEW CRANES IN NZ

Port of Lyttelton's most recent order for a super post-Panamax ship-to-shore crane and four straddle carriers, will bring the number of Liebherr straddle carriers in the port to eight and brings the total number of ship-to-shore cranes at the port to three. Port of Tauranga, on New Zealand's North Island, has also recently taken possession of a new Liebherr super post-Panamax ship-to-shore crane and three straddle carriers. A seventh ship-to-shore crane will be delivered in Tauranga in early 2014, said Liebherr.

ALTERNATIVE POWER

Cavotec has won four orders for its alternative maritime power (AMP) system, including a number of skid-mounted AMP reels for Californian ports for use on container vessels. Delivery is scheduled for September. It has also won an order for ship-based, container-housed AMP units and junction boxes for a customer in South Korea; medium-voltage container AMP units for a Chinese shipping line for installation on 8,500teu container vessels; and an order from Japan for a low-voltage container AMP unit for a maritime electrical systems integrator, for use on container vessels.

CRANE TOWERS IN TYNE

Port of Tyne's new gantry crane was moved into position at its Riverside Quay, South Tyneside, UK, in August. The Liebherr crane is 70m high and weighs 750 tonnes, with a reach of 37m so it can handle 13 across the deck of a vessel. The port hopes the crane will increase productivity by 25%.



Photo: Captain Peter Newton

Port Louis container terminal is to be expanded

Port Louis beats the recession

Mauritius Ports Authority, responsible for Port Louis, reported a net surplus of Rs607.2M (\$19.5M) in FY2012 on total revenues of Rs1.27Bn, compared with Rs372.6M in FY2011.

Overall, cargo handled rose by 9.2%, from 6.5M tonnes to 7.1M tonnes, while containers saw a 19.1% hike from 350,624teu to 417,467teu, resulting from a 14% rise in container ship calls at the port. An increase in fishing vessel movements also contributed, as much of the catch is processed at the port and exported in containers. To cater for continued growth in container traffic, the Mauritius Container Terminal is being expanded. Work is in hand

to increase the length by 240m and next year the approach channel will be dredged to 16.5m. Some 33ha of reclaimed land will provide more space for container storage, and together these works should boost capacity to 750,000teu/year from 550,000teu. This year's throughput totalled 576,383teu.

Bunkering activity has increased during the past decade, from 147,000 tonnes in 2004 to 289,000 tonnes in 2012, with a forecast of 525,000 tonnes by 2020. In 2012, 846 ships called to take on bunkers, against 240 two years earlier.

LPG is another growth area for Port Louis and in late July three Italian-made storage tanks were delivered for Petredec's tank farm at

Mer Rouge, to fulfil domestic consumption (about 66,000 tonnes/year) and also for transshipment to neighbouring countries. The tanks will hold 50,000 tonnes and be erected by Mauritian company General Construction, with completion expected by late December.

Bulk traffic through Port Louis will get a boost with the opening of a coal-fired power station at Albion. Within five years, coal imports for CT Power's 220MW facility are expected to hit 700,000 tonnes/year. The coal will be transhipped from oceangoing bulkers at Port Louis to smaller coastal vessels to take it the 10nm to Albion, where a new jetty will be built.

Transnet collaborates with region's ports

An MoU was signed on 14 August between Transnet National Ports Authority (TNPA) and the Namibian Port Authority (Namport) that will pave the way for co-operation between the two. This is the second in a number of memoranda that TNPA intends to sign with ports in southern and eastern Africa. The first of these MOU's was signed with Maputo Port Development Company in June this year.

"Given the strategic similarities of our respective ports from a geographic perspective and the proximity to industrial zones we recognise the importance of improving our relationship and collaboration," said Tau Morwe, chief executive TNPA.

This collaboration is expected to result in the sharing of maritime experiences and exchange of technical expertise, particularly, in relation to port management, port operations, port environment and security as well as training of employees, said the company in a statement.

Namport chief executive Bisey Uirab said, "Namport is entering a new phase in its existence with emphasis on cost efficiencies, productivity and performance management. This will translate into a customer-focused service delivery grounded in total service quality. The MoU will assist us in our goals and in promoting our port."

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Cash & Cargo

HHLA UP AND DOWN

Hamburg's container terminal group Hamburger Hafen und Logistik (HHLA) posted in August a major rise in 1H13 container throughput, but reduced earnings. Container lifts at HHLA's ocean terminals in the Hansestadt and Odessa rose by 6.8% to 3.8M teu. Intermodal road and rail volumes increased by 21.8% to 581,000teu. The group expanded its market share in north Europe, said HHLA. Its financial performance was hindered by infrastructure constraints and heightened price and margin pressure. Turnover for its listed port and logistics division rose by just 1.5%.

RECORD FOR AUSTRALIA

Port Hedland's iron belt had a record throughput of 288.4M tonnes for the 2012-13 financial year, a year-on-year rise of 17%. The authority also reported the largest-ever shipments of iron ore out of Port Hedland on 24 July: 256,646 tonnes aboard the Fortescue-loaded bulker PSU *Eighth*. The rise in shipments was driven by the port's major users, BHP Billiton and Fortescue Metals.

GPA LOOKS UP

Georgia Ports Authority (GPA) marked record volumes for fiscal year 2013 in terms of total tonnage, bulk cargo, total auto-machinery units, and freight moved by intermodal rail. In the year ending 20 June, the US port had a 2.4% rise in cargo handled over FY2012. "Our overall tonnage increase has been fuelled by the strength of US exports and the GPA's varied cargo spectrum," said executive director Curtis Foltz.

ZEELAND RECOVERS IN Q2

Zeeland Seaports marked good throughput figures for the first half of the financial year, with solid recovery after a tentative first quarter. In the first quarter, transshipment fell by 3.3% but imports and exports rose in the first half of the year by 1.8%, compared with the first half of 2012. In the first half of 2013, imported goods were up by 2.8%, but exports fell by 0.8%. Total goods imported and exported in this period was 16,805,035 tonnes.



Photo: GLAs

GLAs' vessel *Galatea* was used during eLoran trials

Backing up for safe navigation

The UK's Department for Transport (DfT) approved in July the implementation of seven eLoran stations along the UK coastline. GPS will still be the primary tool for navigation for ships' masters, said the DfT, with the eLoran service serving as a backup in case of deliberate or accidental 'jamming'.

The differential eLoran stations will be installed along the south and east coast of the UK, providing alternative position, navigation and timing information, vital for safe navigation, to ships equipped with Loran receivers. By 2019 there should be full coverage for all major ports around the UK and Ireland, representing about 20 additional reference stations.

Martin Bransby, research and radio navigation manager at the General Lighthouse Authorities (GLAs) believes GPS jamming is a real issue that warrants the investment being made in eLoran. "We've shown that there have been some problems with GPS in the past," he told *P&H* adding that one of GLAs own vessels – Trinity House *Alert* – was self-jamming. GLAs held trials over four years which showed that GPS is vulnerable to space weather including solar storms, and showed an increase in events during solar maximum – a period

every 11 years when the sun is more active.

Bransby explained that eLoran is more resilient and has completely different failure modes to GPS. The physics of eLoran means it would require large (100 to 150m), expensive antennas and transmitters to bring it down. In contrast, he said GPS jammers can be as small as a cigarette packet and cost £30.

Ports are vital in the implementation process, he said, and the ports of Harwich and Felixstowe, where the system has been trialled first, have been fully engaged. But their long-term involvement is not onerous and once the system is up and running all it will require is office space – a station about the size of a filing cabinet in the corner of a room.

Overall, said Bransby, they are "very excited about trialling the system".

Trials have already successfully taken place this year out of Harwich on another of GLAs' vessels, *Galatea*.

Several nations around the world are now in conversation with GLAs regarding the project. South Korea, for example, wants to establish an eLoran alliance with the UK while it presses on with its own roll out of stations scheduled for completion in 2015. Bransby told *P&H* that this project includes six new transmitters and 43 differential stations to cover the South Korean peninsula, and the system will cover not only the coast, but inland as well.

eLoran should not be confused with Loran-C – an out-of-date terrestrial radio transmission

“When GPS has a bad hair day eLoran will be there as a backup”

Martin Bransby

Research and radionavigation manager, GLAs



Photo: GLAs

system. "It's a very different technology," said Bransby, likening Loran-C to black-and-white television and eLoran to high-definition colour television.

In contrast to the UK, the US Coast Guard, which spearheaded Loran-C termination in 2009, "is not considering establishing eLoran for the foreseeable future," a US Coast Guard spokesperson said.

Amid budget cuts and reviews of legacy systems operated by the government, President Barack Obama signed a law in October 2009 that a year later ended transmissions at the 18 Loran stations in the contiguous United States and six in Alaska.

The US Coast Guard asserted at the time that Loran-C "was a valuable position and navigation system when it was established in 1957", but that the development of GPS made Loran-C obsolete for both military and commercial navigation.

Moreover, the US Coast Guard contended, Loran-C "was not established as, nor was it intended to be, a viable systemic backup for GPS.

Backups to GPS for safety-of-life navigation applications, or other critical applications, can be other radio-navigation systems, or operational procedures, or a combination".

In terminating Loran-C, the agency had proposed eLoran as an alternative, but ultimately determined it was not a viable backup.

Bransby commented that the first phase of the UK project has cost less than £700,000.

"Ongoing operation costs are quite minimal," he said and when put in perspective of how much it costs to put a satellite in the sky, he thinks there is a business case for its implementation.

"GPS has revolutionised maritime navigation. It's embedded in everything that we do," he acknowledged. He said that when Galileo comes online in 2014, GPS will continue to be the primary form of navigation. But "just when GPS has a bad hair day eLoran will be there as a backup".

China hails Hamburg rail link

China has launched a container rail link that will enable land transits to Hamburg in less than half the time it would take for ocean cargoes. Zhengzhou, a business and logistics centre in central China, initiated the link to Germany in July. Trains will take just 18 days to make the 10,214km journey. The route is via Kazakhstan, Russia, Belarus and Poland. The alternative is also 80% less than the cost of air shipments.

Zhengzhou International Inland Port Development is co-ordinating the scheme with partner rail companies. Containers will be transferred by crane between

different track gauges twice, at the Kazakhstan-China border at Alashankou in Xinjiang region, and at the Polish-Belarusian border.

"It can save a lot of time and money to import German electronic products, construction machinery, vehicles and parts, medical equipment and other high value-added products through this new international rail route," Karl-Heinz Emberger, central and north China chief for DB Schenker, told the *China Daily* newspaper.

China is Germany's biggest trade partner, with import/exports worth \$189.35Bn in 2012.

Fuel fines in California

Failure to switch to low-sulphur fuel in California waters has cost three vessel operators more than \$440,000 in fines. They are thought to be the first such fines for violating the California Air Resources Board's (CARB) rule, adopted in 2008, that requires oceangoing vessels to switch from bunker to cleaner fuel within 24nm of the California coast, maritime sources told *P&H*.

Oslo-listed Høegh Autolins Shipping was fined \$299,500 after its vehicle carrier *Hoegh Incheon* operated its main engines on bunker fuel while in state-regulated waters between November 2009 and July 2011. NCN Panama was fined \$87,750

after bulk carrier *Ikan Bawal* was cited in February 2013 for failing to switch to low-sulphur fuel before docking at Stockton and Long Beach. In August 2012, after it docked at Los Angeles, bulk carrier *K Pluto* was cited for failing to switch fuel. Its operator, Twin Phoenix Shipping, was fined \$53,000.

Kathy Metcalf, director of the Chamber of Shipping of America, which represents US-based companies with vessels that trade internationally, said she suspects CARB will be "getting progressively more active in the enforcement area" for such violations.

CARB officials were not available to comment at the time of writing on 14 August.

Mauritian coal jetty plans

The first completely new port facility in Mauritius for many decades is at the planning stage and expressions of interest (EOIs) for a feasibility study and detailed engineering design are being sought. A coal jetty is to be constructed at Pointe-aux-Caves, near Albion, on the west coast, just south of the Mauritian capital, Port Louis. It is to serve a coal-fired power station that will be built and run by Mauritius CT Power on behalf of the Central Electricity Board (CEB).

Initially of 110MW capacity, the power station will be doubled in size to 220MW, consuming 700,000 tonnes of coal a year. Mauritius imports 700,000 tonnes/year of coal through the Mauritius Ports Authority's Multi-Purpose Terminal (MPT) in Port Louis, the island's only commercial harbor. Albion is just 14km from the MPT but traffic congestion and environmental concerns rule out trucks, so coal will be transhipped into smaller vessels for onward transport to the power station jetty.

Cash & Cargo

BARCELONA CRUISES

More than 1M cruise passengers passed through the Port of Barcelona during the first half of 2013, an increase of 15% over the same period in 2012. The Spanish port recorded 352 cruise calls by June this year. About 56% of the total number were 'turnaround' passengers, beginning or ending their schedules in the port. This category of passenger contributes the most to the local economy by often extending their stay in the city at the beginning or end of their cruise schedule, said the port in a statement.

ICTSI PROFITS UP

Manila-based container terminal operator International Container Terminal Services has reported strong figures for 2Q13 and 1H13 as volumes rose on additional capacity, and higher revenues drove profits. The group reported 2Q13 net profit of \$44.2M, compared with \$34.9M in the same period last year, while revenues rose to \$204.4M from \$171.2M. In 1H13, profit reached \$87.4M, a rise from \$71.1M in 2012, while revenues increased to \$413.7M from \$345M in 1H12.

ATTRACTING CRUISE

The UK's Port of Milford Haven says it needs a bigger berth to cope with larger cruise liners wanting to visit Wales. The port has attracted ships from the US and Germany this year but only vessels carrying up to 1,200 passengers can dock. Ships with 3,000 passengers berth at Holyhead. Cruise Wales, led by the Welsh government, aims to boost passenger numbers by 25% year on year. In 2014, it expects 38,700 cruise passengers to visit Wales.

KIEL EXPANDS STORAGE

Port of Kiel extended its warehousing capacities in Ostuferhafen in August. Warehouse 4 will mainly be used for storing packaged goods and is highly suited for warehousing forest products irrespective of weather, said the port. The additional space comes as the ferry route schedule between Kiel and St Petersburg has doubled. The new warehouse has a floor space of 3,000m² while measuring 100m by 30m.

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Be Right™



Photo: Michael Hollmann

A study carried out by TT Club suggests that mobile port equipment, such as straddle carriers, account for two-thirds of insurance claims as a result of poor operations

Mobile equipment poses highest risk

TT Club has revealed that mobile port equipment such as quay cranes, rubber-tyred gantry cranes (RTGs), straddle carriers and lift trucks are responsible for two-thirds of insurance claims by value.

The insurer analysed 9,500 claims over the past seven years amounting to \$400M and found that 68% of incidents were the result of poor operations. A TT Club spokesperson told *P&H*: "These incidents cause cargo and property damage, but more concerning is the injuries caused."

Some 31% of quay crane claims derived from the crane boom colliding with the ship. TT Club believes that many such incidents can be avoided, for example by

fitting cranes with anti-collision devices and other safety devices. The club pointed to guidance it has published jointly with the Port Equipment Manufacturers Association (PEMA) and the International Cargo Handling Co-ordination Association (ICHCA), entitled 'Recommended minimum safety features for quay cranes' and 'Recommended minimum safety features for yard equipment'. Despite the availability of this advice, the spokesman admitted that operational errors have remained at about the same level over the years.

Yard layout has a role to play. "Cases of equipment colliding with other equipment, people on the

edge of the stack or other fixed objects can be minimised with better traffic design and traffic management," the spokesman noted. The club recommends one-way traffic flows, keeping the numbers of pedestrians and vehicles in the yard to a minimum, and providing good induction procedures for external truck drivers and other visitors.

The use of a stack profiling system can help prevent another common cause of costly claims: stack collisions, which account for \$10M-worth of quay crane claims and \$23M of yard crane claims.

Speaking at ASEAN Ports and Shipping in Ho Chi Minh City, Vietnam, TT Club's regional director for Asia Pacific, Phillip Emmanuel, said: "Effective procedures, training and safety technology will reduce risk and bring other commercial benefits such as lower insurance premiums."

China invests in Sri Lanka

China Communications Construction Company (CCCC) will invest \$1.43Bn to build a 'port city' at Colombo, Sri Lanka, according to a deal with Sri Lanka Ports Authority (SLPA). The state-run SLPA will reclaim 230ha next to the new Colombo South port, said SLPA chairman Priyath Wickrama in July.

SLPA plans include a new 22-floor headquarters, hotels, and apartments on the reclaimed land.

CCCC will be given 50ha on a 99-year lease. Chinese firms have emerged as key infrastructure partners and have built air and sea ports, highways and railroads in Sri Lanka. "For us, it is purely a commercial interest to develop our ports. We will not allow any military base at our ports nor will we allow them to be used for any strategic military purpose," Wickrama said.

Dredging

VENICE DIGS DEEP

Euroports' terminal in Marghera, Venice, welcomed the largest seagoing vessel ever to enter the Port of Venice for handling operations. The arrival of 98,000dw bulk carrier *Ten Jin Maru* at the Italian port on 2 August was made possible following the recent draft increase to 11.5m. Dredging works for the draft increase were recently completed by the Venice Port Authority.

VAN OORD DIVERSIFIES

Dredging and marine contractor Van Oord announced in August its intention to acquire an equity stake of 10% in the Gemini offshore wind park, to be built 60km from the coast of Dutch island, Schiermonnikoog. Together with Canadian sustainable energy company Northland Power Inc (NPI), Siemens, HVC N.V. and Typhoon Offshore it will be developing, constructing and operating the park, Van Oord said in a statement. The share distribution is as follows: NPI 55%, Siemens 20%, Van Oord 10%, HVC 10% and Typhoon Offshore 5%. The total equity capital contributed by the parties amounts close to €500M (\$666M).

BOSKALIS IN INCHEON

The €80M (\$106M) contract for the dredging and reclamation for Songdo International City on the waterfront of Incheon, South Korea, has been awarded by Daewoo Engineering & Construction to Royal Boskalis Westminster. A jumbo trailing suction hopper dredger will dredge 23Mm³ of sand from the navigation channels approaching the existing and new ports of Incheon, then use that for the hydraulic fill phase to reclaim new land for residential and commercial developments in Songdo, Incheon.

LIVERPOOL CONSTRUCTION

A BAM Nuttall/Van Oord joint venture was awarded the Liverpool 2 quay wall construction contract and has already started work. Van Oord's 1,621kW water injection dredger *Jetsed* has cleared 180,000m³ of alluvial silt from the site. This follows prior dredging of around 75,000m³ of material at the UK port that began in June – not part of this JV contract – by Boskalis.



Photo: Port of LA

LNG: fuelling our future?

SIGTTO general manager **Andrew Clifton** is cautious about the safety implications of the wide-scale adoption of LNG

Regulations and laws surrounding the reduction of greenhouse gases (GHGs), SOx, NOx and particulate matter have been bearing down on the shipping industry through vehicles such as IMO's MARPOL Annex VI. Shippers are being driven to operate vessels in a cleaner fashion and the SIGTTO (Society of International Gas Tankers and Terminal Operators) supports this shift in focus. One way to reduce sulphur emissions is the use of LNG as a fuel as opposed to conventional bunkers such as heavy fuel oil or diesel oil. LNG has virtually no sulphur content, compared with diesel oil that has an average content of 1% to 1.5%. It also has potential cost savings compared with conventional bunkers.

However, every coin has two sides, and while LNG has a lot to offer the shipping industry it needs to be treated with respect.

LNG does not discriminate whether it is being carried as a cargo or a fuel. It has identical hazards and properties regardless of the reason for it being onboard a ship.

True, amounts will be much smaller if carried as a fuel, but even a small amount has the potential to be hazardous if not handled correctly. It is stored at cryogenic temperatures and its boiling point at atmospheric pressure is approximately -162°C, and so could crack a ship's deck if spilt. It has a low flash point, and turns into a flammable gas when it comes into contact with air.

During the past 50 years the LNG shipping industry has built up an enviable safety record, with no loss of cargo tank containment, no fatalities directly attributable to the cargo and a maximum estimated quantity of just 40m³ spilt during this period. SIGTTO members operate to best practice standards, which go above and beyond the minimum safety regulations developed by IMO and implemented by flag states. The crew of LNG vessels and the terminals that export and import the cargo are highly trained to a minimum competency standard and handle LNG with the level of respect it deserves.

The SIGTTO believes that LNG as fuel should

Safe LNG bunkering

There are three different ways of bunkering LNG, all of which can be carried out safely:

- Ship-to-ship at anchorage at sea, or while the LNG-fuelled vessel is alongside
- Road truck on jetty to ship
- LNG-fuelled ship alongside an LNG terminal.

be carried, in principle, with the same designs, procedures, training, control measures and best practices as have been used in the half century of successful LNG vessel operation.

‘I would urge any IAPH member thinking about offering LNG fuel bunkering facilities to join the SGMF’

Andrew Clifton

general manager, SIGTTO

Ports thinking about offering LNG as a fuel should first consider the requirements to conducting bunkering. Considerable infrastructure will be required. They should also consider the commercial aspects, such as how long it will take to bunker a vessel. Most importantly, they will need to look at the safety aspect of bunkering operations and do a risk-based assessment that takes into account not just daily routine bunkering operations but also emergency situations and spills. This plan should consider all scenarios. For example, imagine if the *Costa Concordia* had been LNG-

fuelled and found itself in your port's jurisdiction – ask yourself, what plan does the port have in place to remove the LNG bunkers from the stricken vessel? Any port considering offering LNG as a fuel should have sound emergency plans in place.

It is also important to have a thorough understanding of the properties of LNG. There are different specifications of LNG, with different heating values and methane content depending on the source. And so, if a vessel took on bunkers in Rotterdam and then travelled to Singapore where it took on more fuel, it may have taken on two different grades of LNG. This can cause potential problems when burning in the engines due the creation of a new specification of 'mixed' bunkers. These mixed bunkers can also cause problems while in the tanks. Two liquids of different densities in a tank can create a condition known as 'rollover' – when the upper layer of liquid becomes denser than the layer beneath it – and can cause an unstable situation with a large vapour release within the tank.

There are three different ways of bunkering LNG (see 'Safe LNG bunkering' box) and all come with different risks and challenges. Ship-to-ship is a popular and successful method of bunkering LNG cargo, and there are two or three SIGTTO members that have been key players in this field. Over a number of years these shipping companies brought together their experiences in LNG vessel ship-to-ship transfer and collaborated on guidelines that are now used as standard industry best practice.

The IGF Code (International Code for Ships using Gas as Fuel) is now under discussion at IMO. However, it is still some years away from coming into force. The earliest possible date is January 2017, but we believe that date may slip. Therefore, in the absence of current international regulations – an almost unique situation for an activity that is already taking place – we wish to direct the industry to the basic principles of the IGC Code (International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk), to the best practices used by the LNG shipping industry and to support and join the new industry body, the SGMF (Society for Gas as a Marine Fuel).

The SIGTTO recently formed the society to oversee the use of LNG as a marine fuel. This organisation should be open for membership



Photo: Liquiline

A vessel takes on LNG fuel in Norway. LNG must always be given respect when being handled

in September 2013 and will be inclusive and open to all with a risk in the supply chain of LNG as a marine fuel and will focus solely on safety, recommendations and best practices with no commercial or regulatory remit.

The SGMF will issue recommendations and guidelines regarding all aspects of the use of LNG as bunkers including design, operations, training and competency standards, maintenance, acceptable risks and associated control measures and emergency salvage of a vessel fitted with LNG fuel tanks. At the time of writing its first board meeting was imminent and I would urge any IAPH member thinking about offering LNG fuel bunkering facilities to join the SGMF.

LNG has an environmental advantage over diesel oil conventional bunkers and when you consider the alternatives it is likely that it will see wider adoption. Other options are: scrubbers, distillates and non-compliance. Scrubbers are not generally considered to be

the long-term answer by some shipowners and market supply of distillates is presently insufficient to meet expected demands, and it comes at a cost. Non-compliance, which will never be supported by the SIGTTO, carries a reputational, detention and ethical risk.

However, fines are low and so some unscrupulous shipowners may be tempted. Others options include alternative low flash point fuels, such as methanol, but again there is no infrastructure and no supply. Nuclear power would be technically suitable but not acceptable to the public.

The European Union (EU) is investing in LNG infrastructure at ports as part of its Motorways of the Sea project. It is progress in the right direction and is attempting to address the current lack of infrastructure in place. It is a chicken-and-egg situation, as there is little infrastructure at ports and few operators that have invested in the necessary ship-side equipment. Incentives such as that from the EU

may help to kick start its take up.

Port of Antwerp has been working with IAPH on a series of safety checklists for LNG fuel bunkering, and forms a part of the WPCI LNG-Fuelled Vessels project (see page 40). I also urge interested ports to get involved with this impressive project as well as joining SGMF.

LNG fuel bunkering is not really an international activity yet. To date, most LNG-as-a-fuel operations have taken place in Scandinavia, and all operations are carried out using LNG of the same specification. The SIGTTO has concerns that if it is rolled out internationally, especially to the developing world, LNG would not be treated in the same manner as it is in the LNG shipping industry, as in the same designs, procedures, training, control measures and best practices as has been used in the half century of successful LNG vessel operation. We simply cannot tolerate any spills of any kind. Ships' crews need to be trained to a considerably high standard and by this I mean in excess of a one-day course.

Whether or not LNG as a ship's fuel will end up being as widely adopted as some would have us believe, I don't know. It may do, but certainly not in some of the timeframes being talked about at the moment. At SIGTTO, the industry body for liquefied gas shipping, we welcome the increased use of LNG as bunkers. This will result in more volumes being sold and shipped on LNG vessels, due to the increased demand, and so this increased activity is very good news for our membership.

However, I believe I speak for all SIGTTO members when I say that, whatever the level of take up, safety and adherence to the very best practices available will be paramount to avoiding incidents. Any port considering offering LNG as a marine fuel should first understand the full extent of these safety challenges. The SIGTTO has no doubt that LNG can be safely used as ship's bunkers and the SGMF will be paramount in achieving this. **PH**

SIGTTO is the Society of International Gas Tankers and Terminal Operators

More info: www.sigtto.org; www.socgmf.org

Email: manager@sigtto.org; office@socgmf.org

New organisation for best practice

In May SIGTTO set up the Society for Gas as Marine Fuel (SGMF) as there are concerns about how LNG might be handled if it is more widely adopted as a fuel for ships. To date, the SIGTTO has been dealing with this issue as there is no other non-governmental organisation with the correct level of expertise.

There were concerns that if LNG as a fuel for ships was brought under the SIGTTO, it would swamp the organisation and take it away from its core purpose, that of liquefied gas terminals and shipping.

The aim of the SGMF is to promote safe and responsible operations, both for vessels and in the bunker supply chain,

and develop and circulate industry best practice advice and guidance. The society is still in its infancy but its members will include port authorities, bunker suppliers, shipowners, bunker barge operators and regulators. I would encourage IAPH members to join if they are likely to be involved with the use of LNG as a ship's fuel.

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Photo: Krishnapatnam Port

Major ports seek capacity

Diversified cargoes and greater efficiencies is the recipe for success for India's privately owned ports over its public competition, reports **Christina George**

Privately operated Krishnapatnam Port expects to see 40-50% growth this year

Slow capacity addition and lack of infrastructure, along with a general gloom in India's foreign trade, have taken the wind out of India's government-owned ports, also called major ports, since they operate under the Major Port Trust Act of 1963 as port trusts. The 12 major ports in the country have shown a declining trend in last few years as they faced tough competition from private ports in their neighbourhoods. During the last financial year (April 2012 to March 2013), cargo handled through India's 12 major ports showed a decline of 2.58% to 545.68M tonnes, primarily because of a drop in India's foreign trade and poor capacity augmentation at major ports.

Container throughput at major ports also slipped to 7.71M teu in 2012-13 from 7.78M teu in the previous financial year. The 12 state-owned ports account for the majority of India's exports and imports of containerised goods.

In contrast, private ports in India, run by companies such as Adani Ports and Special Economic Zone

(APSEZ), Essar Ports Limited (EPL), Karikal Port Pvt Limited (KPPL), Krishnapatnam Port Company Limited (KPCL), Gangavaram Port Ltd (GPL) and Dhamra Port Company Limited (DPCL, which is a 50:50 joint venture between Larsen & Toubro (L&T) and Tata Steel, have seen a rise in cargo throughput.

Gautam Adani-owned APSEZ operates terminals at Mundra, Dahej, and Hazira all in India, and Abbot Point in Australia, and is also developing port infrastructure at Mormugao, Visakhapatnam, and Kandla in India, Dudgeon Point in Australia and Bunyu in Indonesia.

Ruias-owned EPL has three terminals at Hazira, Vadinar, and Paradip and is developing a coal berth at Paradip Port and setting up a dry bulk terminal at Salaya. It plans to expand its Hazira port capacity by 20M tonnes per annum, taking its total capacity to 50M tonnes per annum. EPL has also won a bid to develop three iron ore berths totalling 23M tonnes per annum at Visakhapatnam Port.

While major ports saw a fall in cargo volume due to poor capacity augmentation and loss in iron ore cargo after the ban on mining and export of iron ore, minor ports, by virtue of a more diversified cargo and higher efficiency standards have gained in terms of cargo volumes year on year.

It was in 1997 that the Indian government opened up the port sector for public-private partnership (PPP). Nhava Sheva International Container Terminal (NSICT) – developed by P&O and now DP World – operated the container terminal at JNPT and was the first project. Private terminals at major ports run by private players have led traffic growth, particularly in the container business, riding on their better quay-side infrastructure.

The Indian government envisaged a capacity of 1001.8M tonnes by March 2012, but present port

capacity in March 2013 was woefully short at 747.51M tonnes. India's shipping minister GK Vasan recently told parliament that his ministry has taken various initiatives to boost capacity and efficiency at major ports, including standardisation of various documents such as model concession agreements, enhanced delegation of financial powers to the shipping ministry to accord investment approvals for public-private projects, streamlining security clearance procedures, and close monitoring to speed up project implementation.

Adding capacity at major ports via PPPs is a slow process, due to problems in land acquisition, environmental clearances, and issues in financial closure, among others. As a result, the major ports, most of which are already operating at peak capacity are likely to face capacity and efficiency constraints. Private ports with their operational efficiency, ability to invest in increased capacity and less congestion are able to divert traffic from major ports and attract new cargo.

The second quarter this year saw a 4% decline in container throughput in major ports to 1.87M teu. Tuticorin was the only major port to post any rise in container volume, with 7.4% at 121,000 teu. Paradip, Ennore, Cochin, and Kandla ports reported growth in aggregate port volumes, while Calcutta, Visakhapatnam, Chennai, Mormugao, and JNPT reported declines. JNPT's throughput at 1.08M teu was also lower year-on-year. During the second quarter this year, major ports overall posted a 1% decline in total tonnage at 137.15M tonnes.

In contrast, APSEZ-run Mundra Port on the west coast is set to overtake government-owned Kandla and Vishakhapatnam ports – currently the leaders in cargo handling – to become India's biggest port. "It is a matter of pride that Mundra continues its march towards becoming the biggest commercial port in India," said

Gautam Adani, chairman of APSEZ.

In the last financial year, Mundra handled 83M tonnes of cargo, with an impressive growth of 38%. Kandla registered a 13% increase year-on-year to 93.63M tonnes during the same period. APSEZ is now the biggest coal handling port in India, overtaking the state-run Paradip Port, when in the last financial year it handled more than 26M tonnes of coal during that time, according to a company spokesperson. The Adani Group has coal mining rights in Australia and Indonesia. According to a report by Mumbai-based stock broking firm Edelweiss, Mundra's cargo throughput grew 38% year-on-year, driven by 13% growth in container and 58% in bulk – largely crude and coal – volumes.

"Our total throughput will cross 100M tonnes with our new coal terminal running in full swing over next two years," said Rajeeva Sinha, director of APSEZ. The company's net profit during the last financial year increased by 49% year-on-year to Rs17.54Bn (\$288.6M) to make it India's largest private port operator.

Mundra, India's second-biggest container port after the government-owned JNPT, loaded 1.7M teu in 2012 to 2013. Mundra Port has three container terminals – the first operated by DP World, second by APSEZ and the third is a joint venture by APSEZ and Mediterranean Shipping Company (MSC). Mundra is benefiting hugely from capacity constraints at JNPT, which is already working at 110% of its capacity. JNPT has been planning a fourth container terminal, but it is yet to take off.

Essar Ports, India's second largest private port operator, recently reported a 48% jump in quarterly net profit year-on-year for the second quarter at Rs685M

Business is good at India's privately operated ports ... two vessels are berthed alongside at both Adani Mundra Container Terminal and Mundra International Container Terminal



Photo: APSEZ



(\$11.2M), riding high revenue growth. The company posted 22% growth in quarterly revenue to Rs4bn (\$65.8M). According to EPL, its ports cumulatively handled 14.08M tonnes of cargo during the quarter as against 12.65M tonnes, registering a growth of 11%.

During the same quarter this year (April to June), EPL won the bid for the operation and mechanisation of three iron ore berths at Visakhapatnam Port [also known as Vizag] for 30 years. The three berths have a combined capacity of 23M tonnes per year. Two of the berths are ready to operate and will contribute to the company's revenues when the concession agreement is signed. The berths are expected to be operational by the end of the year. Visakhapatnam Port handled 12M tonnes of iron ore in the last financial year.

Rajiv Agarwal, managing director of EPL, told *P&H*, "Our third party terminals of Paradip and Vizag will bring us a good customer mix. Paradip Port and Vadinar Oil Terminal has seen an 11% growth in cargo. We have seen a positive trend in cargo shifting to modern and efficient ports," said Agarwal. EPL is awaiting government clearance for its expansion projects at Hazira and Salaya Port in Gujarat, he said. "Our performance has been exceeding the expectations for the past two years," said Agarwal in a statement. During last financial year, EPL recorded its highest-ever cargo handled in a year at 54.52M tonnes, an increase of 26% year-on-year.

Krishnapatnam Port, also privately run, on the east coast handled 21.2M tonnes during the last

financial year, including 16M tonnes of imported coal. According to Krishnapatnam Port CEO Anil Yendluri, "We anticipate about 40-50% growth during the current year with cargo set to cross 30M tonnes during the current year." Coal alone accounted for about 22M tonnes of this figure. The port handled 6.6M tonnes of cargo during the second quarter this year. "Adding new liners and destinations, diversification of cargo and the new container terminal which became operational in October helped in revenue growth," said Yendluri.

A senior Krishnapatnam Port official told *P&H*, "Last year, we added four rubber-tired gantry cranes, five super post-panamax quay cranes and four new ship unloaders. A new warehouse for agriculture produce with 20,000 tonnes storage capacity to handle commodities like maize, rice and wheat, etc. was also commissioned.

"The best load rates, huge inland facility, multiple berths, and extensive storage facilities has resulted in the port handling such agricultural cargoes and has become one of the top most exporting Indian ports for wheat," said the official.

Gujarat Pipavav Port Limited (GPPL) is majority owned by APM Terminals and operates Pipavav Port in Gujarat and has however suffered a fall in cargo. The port handled 56,670 teu in 2011-12 compared with 61,024 teu the previous year. "The fall was due to the overall slowdown in the trade and a Maersk Line service [North Europe-Middle East-India Service] shifting to Mundra Port," said a senior port official. "This year, we will be recovering the lost volume as we have added three new services. The Far East India Express Service (FIX), a consortium operated by Hanjin Shipping, STX Pan Ocean, and KMTC, has begun calling at Pipavav Port from April. NYK commenced its new Thailand-India shuttle service (HLS) from April and Emirates Shipping Line (ESL) launched its Central China India (CCI) Service in July," said the port official.

A GPPL official said the company has lately invested in three rail-mounted gantry cranes, spanning three lengths of standard broad gauge track for efficient handling of containers arriving and departing by rail. "We are expanding facilities on the container side to handle 1.5M teu, up from the recent 850,000 teu capacity. The impediments on 273km of railway track leading up to the national railway grid have been cleared, enabling us to carry double-stack high cube containers. On bulk handling, we have invested in a covered shed for all weather handling of fertilizer and three automatic wagon loaders," he added. **PH**



Photo: Southern Cross Maritime

Singapore pushes to hold on to top slot

Hunger for more capacity is prompting growth of ports in the Singapore basin, reports **Arianne Perez**

Singapore (pictured) should keep an eye on Port of Tanjung Pelepas

Singapore is leading its closest neighbours, Malaysia and Indonesia, in terms of trade volumes. In 2012, Singapore's trade reached \$778Bn, a compound average growth rate of 7.4%, according to a report from International Enterprise Singapore.

Having in 2012 handled a record 31.6M teu, Singapore is set to further strengthen its position as it aims to consolidate its container terminal operations in one location on the west of the island at Tuas. This will almost double port capacity.

The hunger for more capacity can also be seen in Malaysia and Indonesia and this is something Singapore should keep an eye on, said Anthonie Versluis, managing partner of Roland Berger Strategy Consultants. "Given the diverse cargoes that the various ports in Malaysia specialise in, Singapore should view each of them as a competitor [in its] own right."

Versluis highlighted Port of Tanjung Pelepas, which

focuses on transshipment of containers, and the Pengerang Integrated Petroleum Complex, which will focus on the processing and export of petroleum and petrochemical products.

"Ports in the Klang River basin also pose challenges to Singapore and both Northport and Westport are hunting for container transshipment cargo," he said.

"But, overall, Port of Tanjung Pelepas is the [main] challenger to Singapore, because the southern Malaysian port focuses exclusively on container transshipments, which is Singapore's biggest revenue earner." Port of Tanjung Pelepas is expected to record approximately 9% container handling growth by 2025, [compared with] expectations of slow growth, or approximately 2% growth, in Singapore container terminals.

Versluis has further predicted that ports in Johor, Malaysia, stand to emerge as leaders in the Singapore basin in terms of tonnage throughput by 2025, boosted by rapid growth in their liquid bulk, container, dry bulk, and general cargo handling activities.

Meanwhile, with the first berths at Tuas expected to be operational in about 10 years, greater efficiencies and economies of scale are expected, the Maritime and Port Authority of Singapore said. At present, "to support transshipment operations, there is a need to move containers between the five container terminals by truck. Consolidation will minimise this need for inter-terminal haulage, thus saving on time and business costs for port operations."

According to Versluis, the Tuas consolidation may not be a game-changer. "In the end it is just defence, not offence."

Branding it "a good move," he noted that while Singapore would be the first mover, "PTP and Westport will get their acts on this together... but later. Singapore stands to gain from this for a while but eventually it will not matter."

Ultimately, he noted, consolidation does not change the port handling cost, so it does not create a competitive advantage for Singapore."

And with several large Chinese container ports growing much faster than Singapore, Versluis predicts Singapore will drop several places in the rankings in the next five years or so. **PH**

Tuas will consolidate container terminal operations and double Singapore's capacity



Artist's impression: Maritime and Port Authority of Singapore

Rising trend

The first half of the year suggested promise for ports across China, reports **Dexter Yan**

Ningbo (pictured) and Shanghai did not see as great a throughput leap as some smaller ports, although both still posted increases

Chinese port operators fared much better than their peers in the carrier sector during the first half of 2013, despite the continuing recession for the shipping industry, an industry-wide survey has found. While most Chinese carriers were struggling to cut losses or break even, about 97% of all Chinese port operators managed to stay afloat during the first half in 2013, according to a July

survey by Shanghai International Shipping Institute (SISI). Nearly 42% of all operators posted profit margins of above 10%.

Shanghai and Ningbo ports, the two biggest in China, posted milder growth in throughput than their peers of smaller sizes, according to the latest statistics released by China's Ministry of Transport. Port of Shanghai posted a year-on-year 6% rise to



339M tonnes in overall cargo throughput in the first half of 2013, while container throughput increased 3% year on year to 16.3Mteu. Overall cargo handled at Port of Ningbo-Zhoushan rose 8% year on year to 405M tonnes, while the container throughput was up 6% year on year to 8.5M teu.

In the north, Port of Dalian's overall cargo throughput jumped 12% year on year to 207M tonnes in the first half, with box throughput rising 23% year on year to 4.4M teu. At Port of Tianjin, overall cargo throughput gained 8% year on year to 250M tonnes, with box throughput up 11% year on year to 6.5Mteu.

Another trend worth noting is that ports in north China have, on average, reported faster growth than ports in south China, as northern ports handle exports of heavy machinery – most of which is produced locally – to developing countries. Southern ports, however, did not see as much throughput growth as they export to developed

countries, which were still expecting economic recovery. For instance, Port of Tangshan, northeast Hebei province, saw its overall cargo throughput climb 23% year on year to 212M tonnes in the first half of 2013.

The changing landscape of commodity imports to China has also had a significant impact on Chinese coastal ports, according to another study report by SISI. Traditional coal-loading ports, such as Port of Qinhuangdao, have witnessed lasting declines in bulk cargo throughput as coal consumers preferred cheaper foreign coal to domestic coal produced in north China.

In the first half in 2013, the port's throughput – mainly comprised of coal shipments – fell 2% year on year to 135M tonnes. Meanwhile, China's coal imports rose 13.3% year on year to 160M tonnes during the first half, customs statistics showed, which benefited the ports close to the coal-scarce regions in south China. **PH**

Shanghai positions itself for fourth phase

Shanghai International Port (Group) (SIPG), which operates the world's largest container port, is planning to build a new (fourth) phase of construction at Yangshan Deep-Water Port, as it seeks additional box-handling capabilities to raise its prospects as an international shipping hub.

"The fourth phase of the port has been made possible for development for now," Jun Yan, vice president of SIPG, told *P&H*. "From SIPG's perspective, we hope it would be a completely automatic terminal with the highest possible efficiency."

SIPG is running out of space to grow its throughput at Port of Shanghai. Seven-and-a-half years after the launch of the first phase of the Yangshan Deep-Water Port in December 2005, it saw container throughput grow to 14.1Mteu in 2012, on a handling capability of 16Mteu a year. Currently, the Yangshan Deep-Water Port comprises 16 berths along a 5.6km shoreline after the launch of the third phase project in 2008.

Port of Shanghai is expected to post a small container-handling increase this year from last year's 32.529M teu, with a container-

handling capability of 29.3Mteu per year.

The planned fourth phase project is still being negotiated between the local governments in Shanghai and Zhejiang province. Shanghai administers Yangshan Deep-Water Port, while Zhejiang province is in charge of the site chosen for the fourth phase. The plan would have to be approved by China's top economic planning department before the construction kicks off.

If plans are approved the fourth phase will also face engineering challenges. The chosen site is about 1nm away from the second phase of the Yangshan Deep-Water Port and has narrow land depth and limited yard and transit capacity, Yan said. According to estimates provided by third parties, the fourth phase is likely to accommodate more than 20 cranes along a shoreline of less than 3km.

"SIPG hopes that the fourth phase should be able to be berthed by the boxships of largest possible sizes, given that so much has been invested in the Yangshan Deep-Water Port," Yan added. On 18 July, the 18,000teu *Mærsk Mc-Kinney Møller* called at Yangshan on its maiden voyage.

Efficiency before expansion

Ports of Auckland's expansion plans have been challenged by the public, so it has created a new plan that maximises on existing space to reduce land expansion, reports **Anne Hunter**

From its location on the Waitemata Harbour in the heart of Auckland city, Ports of Auckland faces a continuous challenge. Under the New Zealand Port Companies Act, it must operate as a successful business. At the same time, the 100% Auckland Council-owned port has an obligation to act as a good neighbour and a good corporate citizen. Balancing both these responsibilities, says the port, is what its new Port Development Plan is designed to achieve.

Born out of the necessity for Ports of Auckland (POAL) to cater for growth of up to 4% year on year over the next three decades, the plan was a work in stilted progress from 1989 until early 2013. During that time the plan was returned to the drawing board on more than one occasion following public outcries against expansive invasion into a beloved yachting and boating harbor as well as various capacity and growth studies. Finally in April this year, the new POAL Port Development Plan was submitted to the council. It puts two options for the future of the port forward for consideration. Both require minimum reclamation and



one makes over 3ha available for public use. POAL CEO Tony Gibson says the plan focuses on "efficiency before expansion, making the most of land we've already got".

The plan is based on POAL's engagement with Dutch company TBA. Alistair Kirk, POAL's general manager of infrastructure and property, said: "TBA looked at the operation and the existing footprint and told us how we could more efficiently and effectively use our footprint and structure our operations. With them we have developed a long term master plan that enables us to more than double port capacity with minimum expansion. While it does allow for some expansion, the plan relies more on us working smarter with what we already have". He added that reorganisation of the port's patchwork layout is a priority. "That will merge all container operations at the eastern end of the port, thereby achieving significant efficiency by eradicating

Newcastle coal port to be privatised

Australian port privatisation gains pace, reports **Zoe Reynolds**

Port of Newcastle in Australia, one of the world's largest coal ports, is to be privatised, the state government announced in June. Newcastle Port Corporation also operates a general cargo berth and grain terminal, heavy lifts, break bulk and container handling berths. Glencore Xstrata Plc (GLEN), the world's biggest exporter of thermal coal, Peabody Energy Corp. (BTU), and Rio Tinto Group are among companies that ship coal from Newcastle to Japan, South Korea and China, largely through Port Waratah Coal Services, which leases land at the port.

The privatisation follows Sydney's sale of Port Botany and Port Kembla on the south coast, which was finalised in May. New South Wales treasurer Mike Baird said the decision to privatise Newcastle was based on the success of the Botany and Port Kembla transaction, which netted a record A\$5.07Bn (\$4.5Bn). The 99-year lease on both ports went to a consortium of Australian superannuation funds and Tawreed Investments, a wholly owned subsidiary of the Abu Dhabi Investment Authority led by Industry Funds Management (IFM).

The new owners say they are pleased with their acquisition and are now watching developments in Newcastle. "We will be having a look and go from there," IFM CEO Brett Himbury told *P&H*. "We have the capital to invest and we have the experience.

"[Newcastle] clearly fits the infrastructure assets we are looking for," he said. "We want more Botany-style investments. It enables governments to get much needed capital to invest in new infrastructure. That's good for the state, for communities, [and] for everyone."

Meanwhile the Queensland government this year commissioned a report that recommended privatising its northern ports of Townsville and Gladstone.



Photo: Trevor Coppock

Ports of Auckland needs to use its existing space effectively before it can justify expansion

the need for moving containers to and from terminals at either end of the port. It would enable centralisation of the multi cargo operation, giving it more land and more effective berths, so it too becomes more efficient from working on a more conducive footprint."

In its proposals to Auckland Council, POAL has provided two options. The first allows for expansion of Bledisloe Wharf, 135m into the harbor for a 5.5ha expansion and the retention of Captain Cook wharf for general cargo – mostly cars. POAL is NZ's major vehicle import gateway.

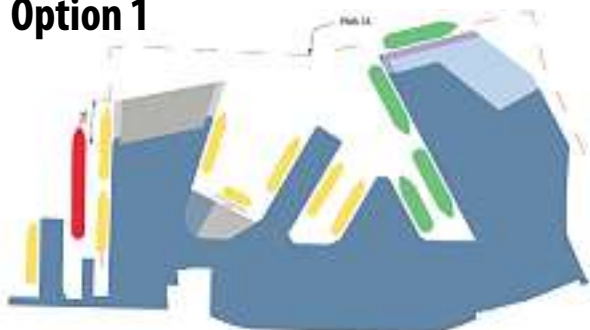
The second – and the option recommended by POAL – allows for a slightly larger expansion of Bledisloe to a 179m extension, which would enable a 6.6ha expansion to free up Captain Cook Wharf for public use. The port says this is its preferred option "because it provides for a more efficient, consolidated, compact port layout and it also meets the aspirations of all those who want more access to the waterfront by allowing the release of 3.1ha for public use. The total port area is in fact smaller than in option one."

After a period of public consultation, the port's plan has now gone to council for consideration. Kirk explained: "We are hoping that the council will include appropriate planning provisions in its unitary plan to be released in September 2013, which will in turn enable us to apply for the various consents we need to carry out the development plan".

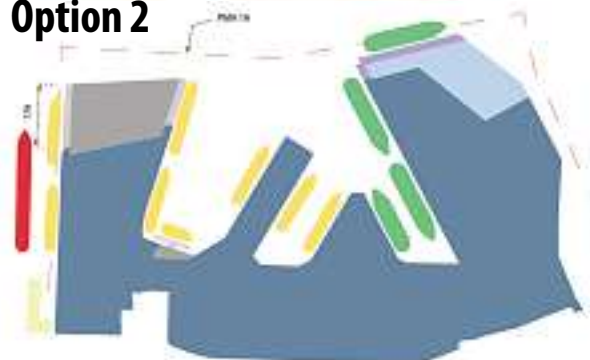
Meanwhile, POAL's two-and-a-half year project to deepen the northern berth at Fergusson Container Terminal from 11.7m to 13m at chart datum is now finished. The deepening allows for the simultaneous servicing of two large containerships at the berth. CEO Tony Gibson said the completion is timely with the return of Maersk's *Southern Star* service to Auckland in July when the port is again servicing the largest ships

Far right: Two options...the new port plans aims to minimise expansion

Option 1



Option 2



Consented reclamation/ pavement	Proposed reclamation
Consented wharf	Option 1: 4.9ha, Option 2: 5.8ha
Proposed wharf extension	Container ship berth
Option 1: 0.62ha	Multi cargo/bulk ship berth
Option 2: 0.86ha	Passenger ship berth
	Existing infrastructure

Graphic: Ports of Auckland

currently calling at New Zealand. Ports of Auckland handles over 800,000teu annually, with over 1,500 ship calls and 3.8m tonnes of break-bulk cargo. **PH**

On the other side of the country, the Western Australian state government maintains it will not privatise and instead is seeking corporate investment in berth and connecting infrastructure. In June, funding from China Investment Bank fell through for a proposed \$6Bn port and rail infrastructure project at Oakajee, 445km north of Perth. Once complete the project will be run by Oakajee Port and Rail, wholly owned Mitsubishi Development Pty. The state government now says it will develop the port with the help of federal government funding in the hope private investment will eventually develop the mining and logistics infrastructure, and port berths. **PH**

“ We have the capital to invest and we have the experience ”

Brett Himbury, CEO, IFM



Photo: IFM

Illustration: Shutterstock



Fruitful ventures

A new web-based cargo tracking system is helping Portsmouth International Port cut lorry movements and carbon emissions. **Stephen Cousins** reports

Portsmouth International Port is a leading fruit import specialist, handling around 70% of all bananas eaten in the UK. Given the high number of truck delivery movements to and from its fruit and vegetable terminals and associated levels of harmful gas emissions, the port decided to look at new methods of running its supply process more efficiently.

In 2011 the port and its shipping arm Mainland Market Deliveries (MMD) won roughly EUR150,000 (USD200,000) of grant funding to develop an innovative web-based system designed to enable members of the supply chain to track and trace fruit and vegetable cargoes in real time. The aim of the pilot project is to demonstrate that a barcode system and a web portal can increase efficiency and reduce


the environmental impact of the logistics chain.

It works as follows: barcodes are attached to palettes of products as soon as they are loaded onto ships in the tropics, and are subsequently scanned the moment they are offloaded by MMD at Portsmouth, and moved into its warehouse. This information is uploaded instantaneously to a web portal that allows organisations involved in the supply chain to monitor the progress of each shipment and ensure shipped produce reaches the UK intact.

Although at present only MMD and a couple of its clients, including supermarket giant Tesco, are able to access the portal, the intention is to adapt it in future to permit access by other members of the supply chain including growers, shippers, wholesalers and retailers.

Funding for the pilot was awarded by Weastflows (West and East flows), an EU-backed initiative set up by Interreg IVB North West Europe to improve freight logistics in northwest Europe. Weastflow comprises 22 partners and 19 observers from countries including France, Germany, Ireland, Luxembourg, the Netherlands, the UK and China, and aims to encourage a shift towards greener freight transport by reducing reliance on road haulage and promoting more sustainable modes of rail, short-sea shipping and river transport. The organisation has access to a EUR9M pot of European Regional Development funding, and Portsmouth's 'track and trace' system is one of four pilot projects being funded to reduce freight bottlenecks in the region.

There are many advantages in having access to 'real-time' information on fruit: as shippers know where their fruit is, they can ensure shipments are collected at precisely the right time so less product is wasted; the number of heavy goods vehicle (HGV) journeys is reduced as trucks need only be dispatched when produce is ready for collection; plus, empty space in trailers is minimised, reducing the overall number of trucks on the roads. Taken together, this means CO₂



“We’ve looked at what other fruit distributors have done and there isn’t anyone using software in this way”

Mark Webb, Project co-ordinator and group port accountant, Portsmouth City Council

Photo: Michel Focard



Photo: Michel Focand

Using a handheld scanning device is one option

These pallets of apples were scanned using a device in the fork lift



Photo: Michel Focand

Track and trace

The barcodes stuck to the pallets loaded at the port of origin include details of location and time, the number of boxes in the pallet and other manifest information. This information is relayed electronically to MMD and uploaded to the web portal ahead of the vessel arriving in Portsmouth International Port.

Upon arrival, as products are discharged from the vessel, each barcode is scanned using dedicated scanning guns connected to fork lift trucks. An integrated handheld PDA (personal digital assistant) can also be installed if preferred. This data, as well as the pallet's location in the warehouse, is wirelessly pushed on when the pallets are received.

"The system enables users to alter information on intake, such as if a pallet has fewer boxes than specified on the manifest," said MMD distribution manager Mark Phippen.

Although the web portal gives MMD access to all available shipping information, the software can be tailored to suit specific clients' needs, giving them a filtered and easy-to-read version. For example, it could simply include dispatches that have already been made, quantities on each dispatch, or orders they have made that haven't yet left the port.

The web portal also adds a new level of traceability and accountability to the supply chain, said Phippen, giving growers the certainty that their fruit has in fact left MMD and is travelling to the ripening centre, as well as allowing the supermarket to trace its fruit back to the farm of origin, which could prove important if there is a problem with the produce.

emissions are significantly reduced, helping shippers, the port and its owner, Portsmouth City Council, meet their sustainability commitments.

Real-time updating of the software is a big improvement on MMD's previous procedure, according to MMD distribution manager Mark Phippen. "Before, we were spending a lot of time manually sending out stock reports to clients," he said. "Although we were able to generate a report for any stock at any given time, there was a five- to ten-minute delay before the client received it, which had a cumulative impact. It also required people and time to generate reports. The new system is more efficient for us and for our customers."

The process has already resulted in logistical efficiencies and carbon reductions, explained Mark

Webb, project co-ordinator and group port accountant at Portsmouth City Council. "Weastflows asked us to devise evaluation criteria to gauge the success of various aspects of the pilot," he said. "One of our provisional KPI (key performance indicator) targets is to reduce truck time spent at MMD's terminal by 15%, and results so far show we are on track to meet that target with trucks spending much less time waiting for fruits for collection. We've looked at what other global fruit distribution organisations have done and there isn't anyone using software in this way, which is hard to believe when you consider the impact it can have."

The EUR150,000 funding for Portsmouth and MMD's 'track and trace' system was matched by EUR150,000 from MMD, with the proceeds going towards development of the Microsoft-based software, carried out by MMD in conjunction with Anglia Business Solutions, plus related infrastructure and input from consultants.

Looking ahead, MMD is planning a second phase that will introduce a transport module to the portal, designed to allow HGV firms to see online when a load is ready, said Phippen. "When entering the gate, lorries [trucks] will be able to drive straight to the relevant warehouse, load up, then return straight to the gate. Under the current system they have to park in a pick-up zone in the port and wait until directed to a warehouse. It will help speed up the entire logistics process," he concluded. **PH**

More info: www.weastflows.eu;
www.portsmouth-port.co.uk

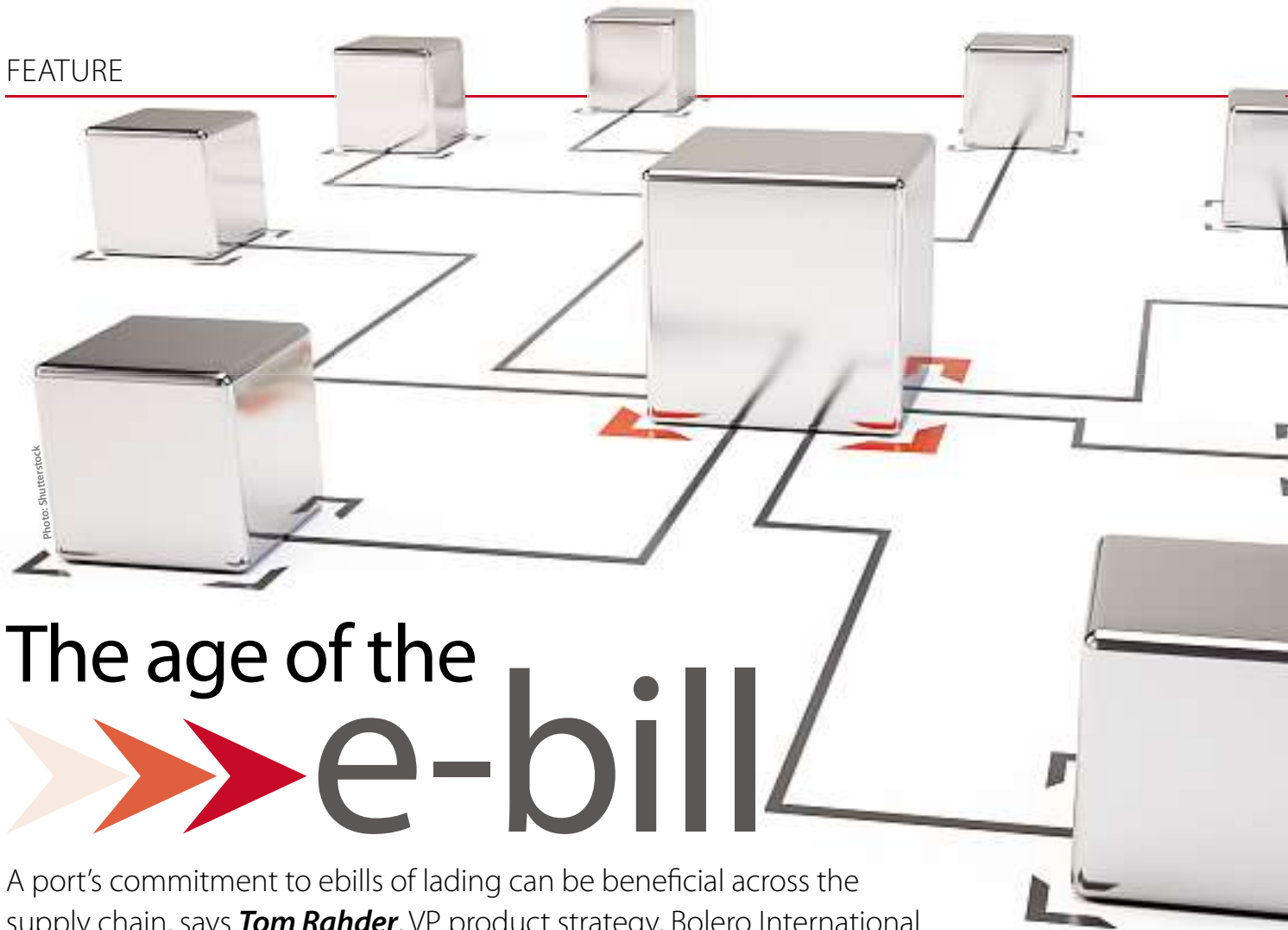
“It will help speed up the entire logistics process”

Mark Phippen

Distribution manager, MMD



Photo: Michel Focand



The age of the e-bill

A port's commitment to ebills of lading can be beneficial across the supply chain, says **Tom Rahder**, VP product strategy, Bolero International

The recent advancement of electronic bills of lading (eBLs) demonstrates a real coming of age in terms of industry credibility and acceptance.

There are no fees or charges for carriers or agents to use the system and so no negative cost implications to act as a barrier to broader adoption. In the past seven months Bolero has seen more than 70 carriers adopt e-bills. While the concept has been around for many years, it is only in the past 12 months that it has taken off.

A traditional bill of lading dates back to medieval times and essentially serves as a contract between the carrier and the shipper, recording the type, quantity, and destination of the goods being carried. This is eventually received by the consignee, who will then return it to the carrier in exchange for the goods.

The paper-based bill of lading document itself must first journey through the trade chain via the banks and this means that it frequently takes longer to arrive than the goods it relates to. For this reason it is often necessary to generate letters of indemnity (LOI) to secure release of the goods where the bill of lading is absent.

There are two types of bill of lading. The negotiable bill allows the consignee – in this context the buyer – to be changed during the lifecycle of the bill as goods are traded. Often this means there is no one specified consignee at the point the bill is issued and so the field is left blank. Imagine an oil trading scenario, where the cargo is usually shipped and then traded multiple times while afloat. A non-negotiable bill is a bill that is issued where the consignee is named and unchangeable. Both negotiable and non-negotiable eBL are valid. Negotiable eBL form the majority and a system's ability to handle these is key to its performance.

The opportunity to overcome these inherent procedural inefficiencies, speed up the slow-moving chain, and ultimately ensure quicker payment is making the eBL an extremely compelling option for exporters and their trading partners.

While the port may not be the main beneficiary of a speedier process, Bolero has received a lot of questions from shippers and carriers as to whether a port will accept electronic originals of documentation. To date this has not been an issue but it is a question that is asked every time. Endorsement by ports of electronic shipping documents will accelerate the migration. The



“Endorsement by ports of electronic shipping documents will accelerate the migration”

Tom Rahder

Vice-president, product strategy, Bolero International

Photo: Bolero International

issue is one of publicity – key ports that are accepting eBL include Busan, Hong Kong, Shanghai, Shenzhen, and Singapore. Ports can play a leading role in this migration and Bolero has already seen shippers ask which ports will accept electronic documents, the answer to which influences some of their freight decision making.

Despite the advantages for the shipping industry, in the main the demand to automate is not coming from the carrier community but rather its customers, which in turn are often the port's customers. Shippers and sellers, such as manufacturers and producers, are often more likely to recognise the benefits of electronic processing, such as efficiency and certainty.

It has been talked about for many years but is now gaining momentum in an industry facing increasing volume and margin pressure.

With capacity currently outstripping demand in many areas, the ability to offer an eBL capability is becoming a valuable differentiator against competitors unwilling to move away from traditional ways of working. In some bulk carrier markets using Handy, Handymax, and Panamax vessels, for example, the adoption of eBL has moved on a stage further, as the ability to offer this capability has become an essential prerequisite to trade with some major commodity suppliers.

Ports' customers typically see eBL as a valuable way to help them cut costs, reduce time to cash, reduce opportunities for fraud, enhance process transparency, and increase certainty by minimising errors and delays in the shipping process and the likelihood of complications when cargoes reach their destination port.

It is an understandable assumption that an eBL is simply the electronic version of the traditional paper-based bill of lading. This is not the case. Rather, it is a combination of a legal agreement and technology, which together replicate the functions of a traditional paper bill of lading.

The eBL solution contains three key elements: a common legal agreement that binds all users as part of an enrolment agreement; a title registry, which acts both as a repository and an application that manages the transfer of title of the eBL; and an exchange platform. An eBL is generated in exactly the same way as a standard bill of lading, with a single additional process.

Bolero's eBL system works in conjunction with existing systems, rather than forcing all parties to converge on a single platform. Users only need to connect once to gain common access to all other community members, and this means they do not interact with a trade partner's specific technology and business processes. The solution was developed in response to feedback from those within the logistics community that did not see the need to build new automated systems but would consider options that build on rather than replace established technologies.

If using the Bolero platform, ports wishing to see the documents in original electronic format would only need a web browser and would not require proprietary

System upgrade in Auckland

The Port of Auckland is installing Navis' advanced Sparcs N4 terminal operating system as part of an ambitious plan to optimise productivity and automate its terminals.

The port handles more than 31% of New Zealand's total container trade, which equates to 800,000teu/year, but efforts to drive growth and efficiency were being held back by its legacy terminal operating system (TOS), which was hampered by a poor user interface, lacked support, and had effectively reached its end of life.

The port was also planning to upgrade its facilities to automate the gate and other terminal equipment, which required the support of an advanced TOS able to offer additional functions and integrate smoothly with different systems and software.

Sparcs N4, manufactured by Cargotec subsidiary Navis, is now being installed to help the port to optimise vessel and yard planning as well as manage process automation at the terminal gate using optical character recognition, which automatically converts handwritten driver documents into digital data. It will also keep tabs on the locations of the straddle carrier fleet in the yard using data from a GPS-based position determination system.

"Our overall aspiration is to achieve 42 moves/hour net, an increase of about 30%, with cost savings of about 40% in terms of labour and equipment," said a spokesperson for the port's owner, Ports of Auckland. "Although the new systems could have been connected to the legacy TOS, the N4 platform integrates much easier with third-party applications and new technologies are constantly being developed for it."

The port was also impressed with Navis' ability to act as a "true technology partner", committing to work with the port before, during, and after the system goes live in March 2014. Sparcs N4 is a scalable platform that can be upgraded for future capacity requirements, and Ports of Auckland is already looking at developing new tools and improving existing ones, possibly even extending the system for use by smaller regional ports.

"We see Sparcs N4 as an enabler and a platform for the introduction of future technologies that will provide further enhancements to our productivity," said general manager of operations Raoul Borley at Ports of Auckland. "It is an essential building block for our future growth."



Navis' system should help the port increase box moves by 30%

Photo: Navis

software. In most cases, ports are happy with copy documents – a printout of the electronic original. **PH**

Bolero specialises in trade finance and shipping documentation flow
More info: www.bolero.net



Global power shift

Onshore power supply is a proven means of cutting ships' emissions when berthed in ports, but designing your first installation can be tricky given the complicated technological standards and high levels of investment involved. **Stephen Cousins** reports

Ship-sourced air pollution is now a major global issue, particularly in cities with large ports where dozens of ships at berth run auxiliary engines, pumping out tonnes of particulate matter and harmful pollutants such as nitrogen oxides (NO_x), sulphur oxides (SO_x), and carbon dioxide (CO₂) into the atmosphere, impacting on the health of people in the local area.

Stricter regulations on emissions are driving major investments in onshore power supply (OPS) installations designed to establish an electrical connection between a vessel and the terminal to

provide full operational power during docking periods.

California's state government has now mandated the technology – by 2014, ships without a shore connection system will be banned from its ports and by 2020, 80% of the power used by berthed ships must come from shore-side electricity. In European ports, ships berthing for more than two hours are now required to either switch to a 0.1% sulphur fuel or use alternative technologies, including onshore power. And upcoming regulations for the trans-European transport network are likely to include shore connection in port modernisation programmes.

Despite this progress, onshore power still represents a disruptive technology and there are many technical and logistical challenges for ports that are considering an installation. There are considerable costs associated with installing new quay-side high or low voltage power units and adapting vessels to receive a connection; the technology may prove uneconomic if vessels don't visit frequently or for extended periods; and many ports will be concerned about the impact on

Using several different suppliers made it complicated

Heidi Neilsen

Head of sustainability, Port of Oslo



Photo: Oslo Havn/IF

turnaround times if they have to plug a vessel in.

Failure to give proper consideration to each of these factors, and ports and their supply chains could be in trouble, explained Lorène Grandidier, shore connection strategic marketing manager at Schneider Electric: "Ports must be especially clear on the types of vessel likely to use a supply and their relative power requirements. I know of some ports that specified OPS, had it installed, and then discovered the systems either weren't able to provide enough power for visiting ships, or they had been fitted with the wrong power connection for the vessels calling. All these issues need proper consideration."

When assessing the value of OPS, one might wonder what the actual environmental benefits are of using grid electricity, when the electricity itself often comes from a greenhouse gas-producing power station. However, research completed for the European Commission by Entec has found that the efficiency of power stations is much higher than that of ships' power generators, reducing NO_x, SO_x, and PM by about 90% on average. Power plants also tend to be located in less-densely populated areas, reducing the impacts of pollution and noise on the local population.

While low sulphur fuel offers a legislation-

compliant alternative to OPS, these have almost no impact on NO_x and CO₂ emissions, limiting their environmental impact.

Several parameters will influence the viability of an OPS installation. The level of investment required will often depend on the size of ships using the system. Generally speaking the bigger the ship the greater the investment, and older ships are more expensive to convert due to their outdated electrical systems. Berth occupation rates and the number of hours ships dock is also very important, said Grandidier: "A ship that calls just once a month but stays two days connected at the berth could work out financially, likewise, if ships call every day but stays just two hours that can work too."

Adequate space for supply units is required on the shore-side, so for example a cruise terminal with little room close to ships might be more suited to a mobile system. The local price of electricity is also important, as if electricity is more expensive than the price of bunker fuel the costs won't stack up.

In October 2011, the Port of Oslo launched one of Norway's first OPS systems for the passenger ferries *Color Magic*, *Color Fantasy*, *Crown of Scandinavia*, and *Pearl Seaways*, each of which call at the port on a regular basis. Developed in co-operation with ferry operator Color Line and the environmental organisation Bellona, the 50Hz connection is totally automatic and requires no manual handling on shore.

A report into the 'lessons learnt' from this pilot project, published last year, revealed the high levels of investment involved in converting the Color Line ships and the confusing nature of contemporary electrical standards.

The report states: "A high-voltage connection can easily supply sufficient electricity [for a large passenger ferry] through a single cable, but this presents new challenges and stringent security requirements. Ships must include or install equipment designed to receive high voltages and to transform the voltage to the appropriate level for on board usage, which for many ships requires investments that could run into millions. Another challenge is the lack of a uniform

Onshore power supplies battery-operated ferry

An innovative combined automated mooring and onshore power supply system is being installed in western Norway for use by the world's first battery-powered catamaran ferry.

Norwegian ferry operator Norled has placed an order for Cavotec's Alternative Maritime Power (AMP) onshore power supply system and its MoorMaster automated mooring system to be installed at the Lavik and Oppedal passenger ferry berths.

The 80m-long ferry, scheduled to enter service in 2015, has capacity for around 120 cars and 360 passengers and is expected to make 17 crossings of the Sognefjord, the largest fjord in Norway, each day.

The MoorMaster units will be operated via hand-held radio remote controls from the bridge of the vessel, signalling to the AMP unit when the ship is secure. A laser sensor will then guide the AMP

connector to a hatch in the side of the vessel to allow the ship's battery to start charging. MoorMaster enables the propeller system to be switched off for nine minutes during each 10-minute boarding procedure, which is enough time to connect the AMP system to charge the onboard batteries.

Norled hopes that the 6,000 port calls made annually on the Lavik-Oppedal route will result in dramatic improvements to air quality and fuel savings compared with conventional mooring and power systems.

"The extent of technical innovation and system integration on this project shows how port operations can be made dramatically more sustainable and efficient," said Sigvald Breivik, technical director at Norled.



Photo: Oslo Havn KF

Color Fantasy is one of two of Color Line's ferries that have automatic 50Hz connection

standard for designing such systems."

This latter challenge has now largely been resolved following the adoption, in August 2012, of a new ISO standard for high-voltage shore connection systems (HVSC), which specifies how ships should be designed for systems above 1000 volts.

However, the Port of Oslo has noted that the standard does not resolve the fact that distribution voltages in different cities and ports can vary, as can the frequency of power produced by public grids. Public grids in Europe, for example, typically have a frequency of 50Hz, whereas the US, Canada, and many other large countries in South America and Asia produce electricity at 60Hz.

Many large passenger ships, particularly cruise ships, run on a 60Hz onboard power grid, but some, designed for the northern European market, are based on 50Hz, so a frequency converter must be installed to prevent damage to the engine or other electrical equipment.

The number of onshore connection cables varies depending on voltage. A low-voltage OPS (typically

400-480 volts) will require several connection cables, whereas high-voltage systems (6.6-11 kV) often utilise a single cable.

But the connection process needn't disturb the normal flow of shipping, said Schneider Electric's Granddier: "Connection can be carried out simultaneous to container or passenger offloading. A typical connection takes between 15 and 30 minutes depending on the type of vessel."

Connections at the Port of Oslo have been fast so far, but the study found the system would have proved impractical for ships that berthed for less than two hours.

The report also said it would have proved easier if a single company had adapted all ships for OPS, says Heidi Neilsen, head of sustainability at the Port of Oslo: "Using several different suppliers made it complicated and the project would have been even more complicated if we were adapting several different types of ship. It demonstrates how important it is to have strong co-operation between the port and its users."

OPS power systems are generally reliable and require little ongoing maintenance. Schneider Electric's equipment has a design life of 20 years and incorporates in-built redundancy circuits so if one piece of equipment fails, another kicks in and supply to the ship is maintained, albeit at a decreased level. In the case of a complete power outage, which has never occurred in Schneider Electric's equipment, said Granddier, ships must switch to their emergency engines.

Although designing ports to accommodate OPS is not without issues, the technology's future now seems assured. Already popular in Europe and North America, China is now getting behind the technology, having included OPS in its 12th five-year plan. **PH**

Join the OPS group on LinkedIn

In June, the LinkedIn group for onshore power supply (OPS) was started by Susann Dutt, quality manager and sustainability specialist at Gothenburg Port Authority, Sweden. Dutt is also the project leader for the WPCI OPS working group.

The LinkedIn group is connected to the WPCI OPS project webpage and the recently updated OPS website – www.onshorepowersupply.org. The LinkedIn page is a platform for companies and organisations to share their knowledge, experience, and best practice regarding OPS as a technology to reduce emissions and noise from commercial vessels in ports, Dutt explained to *P&H*.

She said that the next step is to "get as many members as possible on the LinkedIn group". She hopes members will share their plans for OPS, feasibility reports, and decisions made in relation to OPS. Although the group was only set up a month ago at time of writing, Dutt noted that it already has 50 members.

The LinkedIn site will complement the OPS website, which has been recently updated and now contains new content, including entirely new sections on standardisation (www.ops.wpci.nl/what-is-ops-/standardization) and suppliers (www.ops.wpci.nl/suppliers), as well as buttons to 'share' your opinions on a variety of social media functions.

Dutt would also be delighted to welcome more ports interested in OPS technology to the WPCI working group. She is especially keen to hear from those that can help keep the website as up to date as possible, and would be pleased to receive information on decisions being made at your port to invest in to OPS and finalised feasibility studies. The core members of the working group are the ports of Gothenburg, Amsterdam, Antwerp and Hamburg, and also IAPH Europe.

Port of Gothenburg first introduced OPS to its customers in the late 1980's when it offered low-voltage connections. Its lessons learnt over the past 20-plus years can be viewed here: www.ops.wpci.nl/implementation-1/stepwise-approach. Dutt also noted the following points to *P&H*:

- OPS is not a 'one size fits all' solution. But it could be an option for certain types of vessels in some ports. It works especially well for vessels that call on a regular basis, and are at berth for more than one hour, for example ro-ro and passenger traffic.

- The environmental benefits of using OPS can vary significantly depending on emissions' levels when producing

electricity at the source. For it to be really environmentally advantageous, energy should be drawn from alternative sources such as wind and sun power.

- The main beneficiary of OPS is society as the costs of setting up OPS in your port can be very high.
- Sweden offers a tax exemption, or at least a reduction of 97%, to shipowners that have adopted OPS and this has made it commercially attractive to them.

IAPH member and other parties can get involved by:

- joining the LinkedIn group to their share experiences, studies, questions, and comments;
- reading about other ports' OPS experiences at www.onshorepowersupply.org;
- creating your own feasibility study; and
- sharing info about the website to your network.

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



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North VS South

which passage is most cost effective?

It makes sense to use the Northern Sea Route to move the natural resources found in the region, but what of containerised goods where economies of scale makes commercial sense? **Dr Masahiko Furuichi** and **Dr Natsuhiko Otsuka** carried out a study as part of IAPH's Port Planning and Development Committee's work programme for the last term. The study was revealed in LA in May

Shippers wishing to move cargo between east Asia and northwest Europe have a choice. It can either be shipped down through the Pacific Ocean, above Australia, across the Indian Ocean and up through the Suez Canal (see map). This route, known as the Suez Canal Route (SCR), is approximately 40% longer than the alternative – the Northern Sea Route (NSR), which involves sailing through the icy waters of the Arctic Ocean, and is only navigable for about a third of the year. The NSR has benefitted from the increase in trade between east Asia and northwest Europe and in 2012 saw the highest volume cargo it has seen in the past 10 years with 1.26M tonnes passing through.

This increase in volume is due to the route accumulating 46 ship voyages carrying natural resources. These resources, found in the Arctic region, include gas condensate from Murmansk, Russia, LNG from Hammerfest, Norway, and iron ore also from Murmansk and Kirkenes, Norway. It therefore makes commercial sense for vessels carrying cargoes found in the Arctic region to use the NSR.

Arctic sea ice is retreating due to global warming and this is extending the window during which merchant vessels can transit the NSR each year. In

2012, the NSR sailing season started in late June and the last voyage was completed late November, making it the longest navigational period in history.

This extended window, as well as the route's record 2012 throughput, makes use of the NSR more feasible and this has prompted a number of studies that analyse and compare the estimated costs of shipping containerised cargo through the NSR, with alternative conventional routes such as the SCR. The estimated cost varies among the studies making it difficult to draw comparisons.

The objective of this project was to establish a common platform for a wide range of cost estimation assumptions through clarification and analysis of cost components. It refers to literature created over the past 10 years and the most recent interviews of NSR shipping professionals. It also considers the NSR's navigability and engineering aspects.

The literature studied reveals that there are three main factors that influence the overall cost of shipping via the NSR:

- 1) the window of time that ships can sail through the NSR (service period);
- 2) the NSR fee; and
- 3) fuel cost.

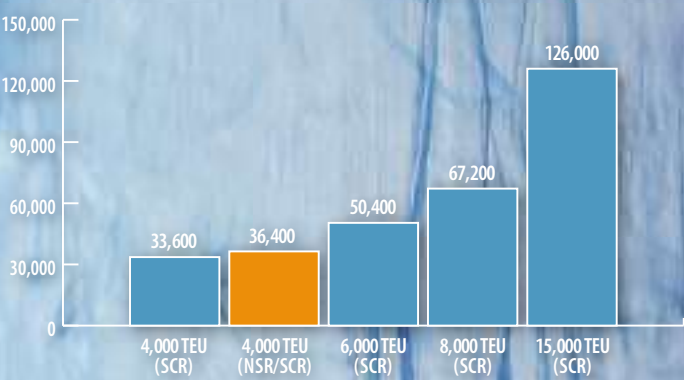
Estimated shipping cost per teu for NSR/SCR-combined shipping and SCR shipping

	NSR/SCR-combined shipping		SCR shipping		
Ship size/NSR service period SCR service period	4,000 teu NSR: 105 days SCR: 260 days	4,000 teu NSR: 0 days SCR: 365 days	6,000 teu NSR: 0 days SCR: 365 days	8,000 teu NSR: 0 days SCR: 365 days	15,000 teu NSR: 0 days SCR: 365 days
Annual container throughput	36,400 (teu/year)	33,600 (teu/year)	50,400 (teu/year)	67,200 (teu/year)	126,000 (teu/year)
Shipping unit cost per teu	1,211 (\$/teu)	1,355 (\$/teu)	1,320 (\$/teu)	1,211 (\$/teu)	944 (\$/teu)
Annual voyages	NSR: 5 SCR: 8	NSR: 0 SCR: 12	NSR: 0 SCR: 12	NSR: 0 SCR: 12	NSR: 0 SCR: 12

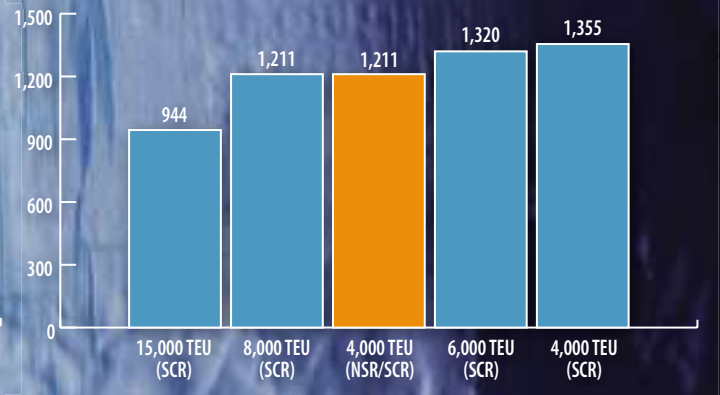
Remarks: NSR service-period is assumed 105 days, NSR fee \$5 per GT and fuel cost \$650 per tonne

Source: Dr. Masahiko Furuichi and Dr. Natsuhiko Otsuka

Annual container throughput (teu/year) by ship size



Shipping unit cost per teu (\$/teu) by ship size





Photos: Port of LA

Dr Masahiko Furuichi (left) and Dr Natsuhiko Otsuka (right) at IAPH 2013 in LA where the study was presented at a technical committee meeting

We took a realistic figure (for example, average fuel cost, average NSR fee, and average NSR service period) for each of these factors. We then carried out empirical analysis on different scenarios of container transport between Yokohama in east Asia and Hamburg in northwest Europe. In terms of distance, the NSR is 7,356nm compared with 11,417nm via the SCR. The ice-class 4,000teu container ship was assumed for NSR/SCR-combined shipping, when a vessel transits the NSR during the warmer months, and SCR in the colder months. An 'ordinary' (non-ice class) container ship of the same size (4,000teu) was also considered, along with an ordinary large container ship of 6,000 teu and 8,000 teu, and an ordinary ultra-large container ship of 15,000 teu, were assumed for SCR shipping.

The NSR service period is assumed as 105 days, 135 days, 165 days, 195 days, and 225 days. Similarly, sailing speed is assumed at 14.1kt during August, September, and October and 12.8kt during May, June, July, November, and December when the water is more icy. For the open waters of the SCR, 20kt speed was assumed.

NSR/SCR-combined shipping is compared with an ordinary container ship using the SCR throughout the year.

The grid (page 32) considers the scenario of an ice-class 4,000 teu-ship with a service period of 105 days, and a fuel cost of \$650/tonne. The NSR/SCR-combined shipping cost was computed as \$1,211 per teu. For the remaining days of the year this vessel would transit the SCR. This combined shipping route is competitive against an ordinary container ship that only uses the SCR. Using a 4,000 teu vessel led to a cost of \$1,355 per teu; 6000 teu vessel, \$1,320 per teu; and 8000 teu vessel, \$1,211 per teu vessel. It is understood that the longer the NSR service-period is assumed, the lower the shipping costs per teu unit will be. However, special attention should be paid to recent trends in the increasing size of container ships. There has been a rapid shift from 4,000 teu vessels to large vessels of 6,000-8,000 teu and even ultra-large – 15,000 teu – ships. This significantly affects the competitive advantages presented by a 4,000 teu ice-class vessel, carrying out NSR/SCR-combined shipping.

As the ice melts and the NSR service period gets longer – from 105 days to potentially 265 days – more

voyages will be possible via this route, and therefore more voyages possible throughout the year.

At the moment the NSR service period lasts for three and a half months (105 days), and this equates to 13 voyages a year by NSR/SCR-combined shipping. Only 12 voyages are possible by the SCR (see grid). But if the number of months increased, the following annual container shipments, based on NSR/SCR-combined shipping using 4,000 teu vessels, could be achieved:

- 36,400 teu per year with 13 annual voyages representing 108.3% of current capacity;
- 39,200 teu per year with 14 voyages representing 116.7% of current capacity; and
- 42,000 teu per year with 15 voyages representing 125% of current capacity.

An additional annual shipment of 25%, compared with the current annual shipment of 33,600 teu by SCR shipping with 12 voyages, might be enough of a financial incentive for operators and ship-owners. At the same time, transport time via the NSR is estimated at 19.3 days, 35.4% faster than that the 30.4 days via the SCR. Reduced transport time is considered a significant advantage against SCR shipping, especially if the vessel is carrying high-value cargoes.

Fewer miles and slow steaming also means less CO₂ emissions and with a reduction in emissions computed within the range of 13-35%, NSR shipping may prove attractive from an environmental standpoint.

Container vessels of class ICE 1A or higher are under operation in waters where ice conditions are severe. These include the *Ottawa Express* that has been navigating in ice-covered waters such as the Saint Lawrence River. The demand for NSR container shipping is expected to increase and so increasing numbers of larger-sized (4,000 teu) ice-class vessels are expected to be in service in the near future.

We hope that the cost analysis of NSR/SCR-combined shipping for the scenarios included in this report may provide valuable insights to the researcher as well as practitioner. Similar studies are quite challenging and valuable, especially those that focus on LNG, iron ore, and vehicle transport. We recommend that many other related studies need to be developed using the common platform created as part of this research. **PH**

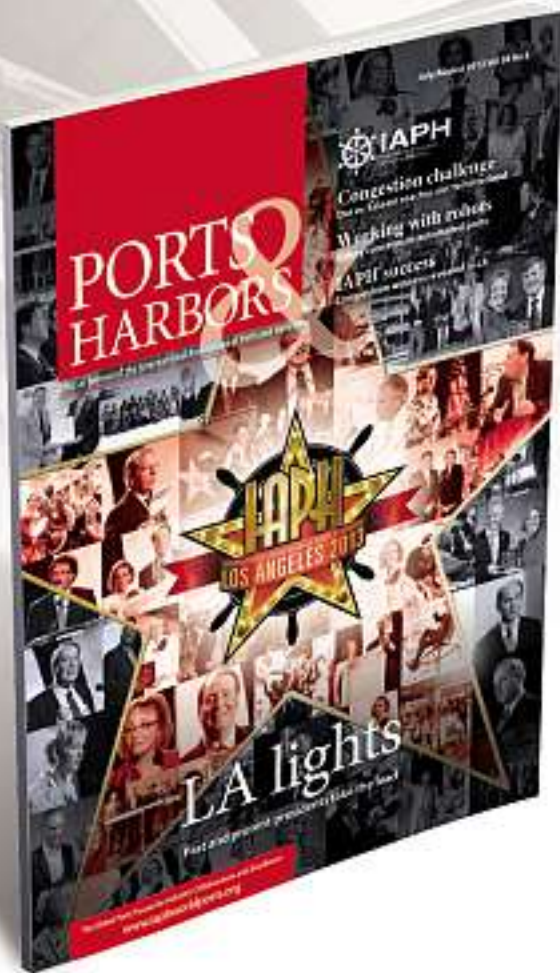
Effects of the Arctic Sea Routes (NSR and NWP) Navigability on Port Industry is the culmination of two-year's work carried out by the Port Planning and Development Committee (PPCD) and is available to IAPH members on its website

Dr Masahiko Furuichi, Ph D is vice chair of the IAPH PPDC and senior adviser at the Japan International Cooperation Agency (JICA). Dr Natsuhiko Otsuka is also involved with the committee and is director of planning at North Japan Port Consultants Ltd

More info and to read the report: www.iaphworldports.org

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Position of power

The Port Planning and Development (PP&D) Committee produced a report in April that should act as a guidance document for ports wishing to facilitate offshore wind power infrastructure. This article is based on the report written by **Dr. Oliver Boldt**, management consultant at Uniconsult

Ports worldwide have realised that the offshore wind energy (OWE) industry is offering enormous value-adding potential to their development. It is seen as an opportunity to diversify and in recognition of this growing trend, IAPH's Port Planning and Development (PP&D) Committee has put together a report on *Demand and requirements for the offshore wind industry concerning ports worldwide*.

The project was championed by Hamburg Port Authority (HPA) and in May, Wolfgang Hurtienne, managing director of HPA and chair of the PP&D Committee, gave a presentation on the report at the IAPH conference in Los Angeles.

Europe currently has the largest offshore wind energy market and the region has demonstrated how suitable ports are to act as a production location as well as a base or service port for wind energy.

The demand for alternative energy sources is expected to increase. Events at the Fukushima nuclear power plant in Japan in 2011 created new dynamics that turned the debate on energy politics and the production of renewable energy after the decades of focus on nuclear and fossil fuels. These dynamics have led to a reduced period of time to plan and realise offshore wind energy farms (OWF) and we have seen

an increase in the number of farms worldwide. These developments create jobs and other positive regional economic benefits at ports along the world's coasts.

The North Sea ports are currently the main nodes for this new market, which is rapidly growing in Northern Europe. The UK is Europe's leader in offshore wind energy in terms of installed megawatt (MW) capacity. Germany will be the second largest offshore wind energy market, as studies indicate that up to 69 OWF will be installed along the German Bight on the country's coast. Several other European countries are planning to establish an offshore wind energy sector within their waters. And Asia is a region now recognised as having high potential to develop this sector of industry. This industry will also influence the worldwide market, as the import and export of components and equipment for offshore, as well as onshore, wind energy plants are shipped. This is likely to have considerable impact on industry, especially in Europe, Asia and North America.

In the next five to 10 years it is expected that the average size of an offshore wind farm will increase. The average size of the projects currently under construction is 300MW. In comparison, the next round of developments in the UK could be up to 555MW. This trend is supported by technical advances in the field of offshore wind turbines. Today, 5MW turbines are available, but 10MW turbines are expected in the future. In January this year, a Siemens 6MW turbine was installed at the Dong-Offshore Wind Farm Gunfleet Sands, off the English coast.

The development of offshore wind energy as a power supply system of the future holds enormous potential for seaports in terms of employment and value creation. Ports are the decisive logistics hubs for construction, service, and maintenance of OWF as all offshore wind energy plant (OWEP) components have to be passed through them.

In addition to the core maritime offshore wind energy logistics tasks such as storage, stowage, transshipment and equipment handling, there are additional opportunities for ports to benefit from offshore

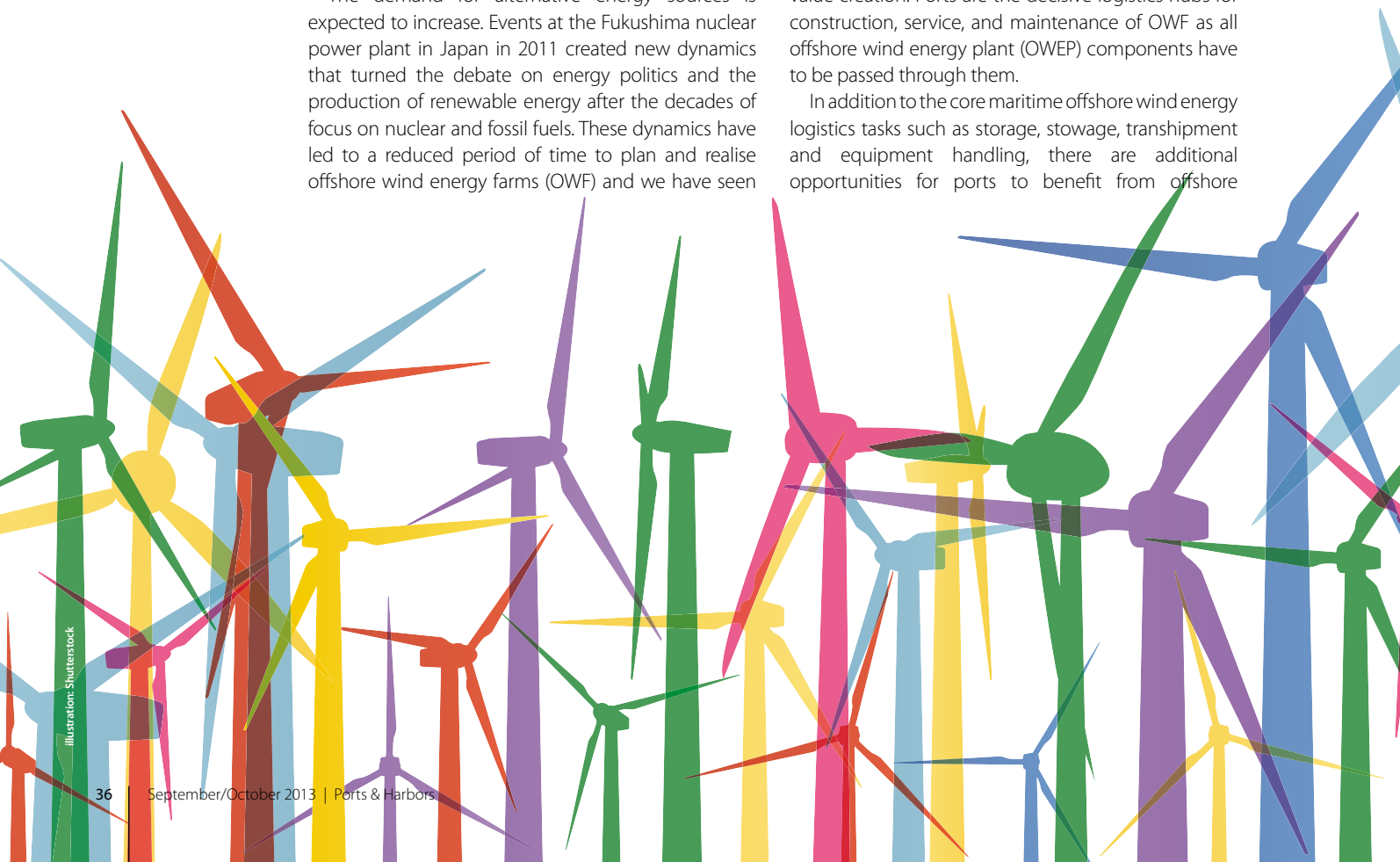




Photo: Alstrom

Wind turbines are getting bigger and ports will need the landside space to accommodate them

wind power generation such as the settlement of companies, creation of jobs, and further development of infrastructure and research facilities.

Offshore wind energy industry players, including wind farm planners and developers, component manufacturers and design engineers, shipowners, OWF operators and energy providers are checking different port locations to see whether they are suited to offshore wind energy business activities. Players are especially interested in a port's infrastructure capacity, such as space for preassemble and heavy lift, and this is often limited in many ports.

There are a number of processes in the offshore wind energy supply chain and therefore a variety of ways in which a port may be involved. Four main business segments or functions can be distinguished, which require different port characteristics (see box).

Europe used to be a pioneer in the field of wind energy, but new markets are emerging. According to the World Wind Energy Association, 86 countries worldwide are now using wind energy, from either offshore or onshore sources, to generate electricity. Of the installed capacity, 86 % can be found in only 10 countries, of which six are members of the European Union. The leading nation in terms of installed capacity with 27% is China, which had nearly 68,000MW in the middle of 2012.

The report was developed to guide ports that would like to position themselves in the offshore wind energy industry and for realising the identified market potentials in the fields of infra- and supra-structure, strategy and cooperation, location marketing, and organisational setup and subsidy acquisition.

Ports should also analyse their market potential which arises from developments in their corresponding regional, national or continental offshore markets. PH

*Uniconsult is a transport consultancy company
For a copy of the report go to: www.iaphworldports.org
More info: www.hamburg-port-authority.de;
www.uniconsult-hamburg.de*

Port players in OWFs

There are four main business functions for a port wishing to position itself as a player in the offshore wind power supply chain. Each area requires a different set of characteristics:

Function 1: Fabrication and installation (base port)

- Sufficient industrial real estate at reasonable prices
- Optional areas for future expansion (areas for handling, assembling, and fabrication)
- Efficient heavy load traffic infrastructure for in- and outbound component flows
- High potential of the location in terms of qualified manpower
- Availability of offshore wind energy cluster networks to ensure production, knowledge and logistics synergies
- Clear commitments from political decision-makers for the development of such offshore wind energy clusters
- Administrative support by the port authorities
- Promotion of already established offshore wind energy industry settlements

Function 2: Operations, maintenance and service

- Quick logistics connectivity from the port to the offshore wind farm (OWF) infrastructure
- Good accessibility to the OWF for the service crews
- Short seaward distance from the port to the OWF

Function 3: Research and development

If a port has already established an offshore wind energy profile, it increases the attractiveness of the location for the settlement of research and development institutes. This type of activity should generate value and jobs in the port locations and its surrounding regions.

Function 4: Import and export of onshore and offshore wind energy plants and components

- Requirements for an import/export port are the same as for a base port, as described above
- Due to the huge amount of components that are fabricated inland an efficient hinterland connection is of crucial importance for import/export ports
- Special focus must be placed on the ability to handle heavy lift cargo and break bulk

Gatekeeper to fortress Europe

P&H visits the Moroccan port that is a magnet for poor Africans seeking a new life in Europe

In June, Spanish police released a video showing an Algerian illegal immigrant hiding at water level inches from the whirling propellers of a Moroccan ferry bound for Spain. Each year, a quarter of an estimated 500,000 illegal immigrants wishing to enter Europe try to reach Spain from Morocco, just eight nautical miles across the Strait of Gibraltar.

Morocco's main straits port is Tanger Med, which has just fully revamped security at its ferry terminal and adjacent container port. The surveillance system is designed to eliminate the main threats to the port: illegal immigration, terrorist attack, and smuggling, according to Emmanuel Flory, border surveillance programme manager for Cassidian, the company that masterminded the system's installation.

Flory said the integrated network is now in full operation, including video surveillance and analysis, maritime surveillance, an access control system that includes biometry and optical character recognition, a public address system, and a communications network. To tie it all together, Cassidian has installed

an innovative port security management system allowing operators to manage the subsystems by means of a single screen with a unified interface. Flory explained that the software is a closed system that is not susceptible to hacking.

He told *P&H* that both Tanger Med's terminal operators and their customers welcomed this top of the range surveillance technology: "Illegal immigration can have a major impact on customers' expansion; if illegal activity is a serious issue, carriers will regard it as too big a risk to their operations and move elsewhere." He added that since hashish trafficking is common in the area, drug smuggling was another major concern.

There are plenty of ferries for illegals to try for. At the height of the tourist season there are approximately 10 ferries using the terminals, making up to four rotations daily. A spokesman for the border police authority estimated that in the busiest periods there could be up to 1,600 would-be stowaways a month trying to enter Tanger Med. "Most are apprehended early and only one or two manage to get inside the terminals," he explained.





“If illegal activity is a serious issue, carriers will see it as too big a risk and move elsewhere.”

Emmanuel Flory
Programme director, Cassidian

Photo: IHS Maritime

Spain's long coastline and proximity to Morocco make the area attractive to people smugglers and the treacherous waters of the strait claim the lives of many would-be asylum seekers every year.

The most enterprising illegals reject fence-climbing; some have been known to swim for over a mile to enter the port from open water. “The system's thermal cameras are particularly good at detecting illegals who try to gain access from the sea,” explained Flory. As regards potential terrorist attacks, he estimates that the maritime surveillance radar and cameras can give the port authority seven minutes' notice of the approach of a boat that could constitute a threat. As backup to the surveillance system, the Moroccan gendarmerie patrols the coastal waters in powerful boats that are able to intercept suspect vessels quickly.

On the commercial side, the success of Tanger Med's shared container port has attracted interest from other terminal operators and shipping lines, resulting in the construction of a second box terminal that has been brought forward by a decade.

“A second container port [TM2] was supposed to start in 2025 but has been brought forward because of interest raised by the success of the concessions at TM1,” said Rachid Houari, the director of Tanger Med 1 (TM1).

In the first two years of operation, the two concessions in TM1, operated by Eurogate and APM Terminals, increased their transhipment throughput to a combined total of 2M teu and now handle roughly equal volumes totalling 2.4M teu. Much of the

transhipment trade has been attracted away from well-established south European ports.

TM2, which is also a shared facility, is now being built just to the west of the ferry terminal. “The operators will be [state-owned] Marsa Maroc and the second will be a surprise,” Houari told *P&H* in June. He added that the basic infrastructure of TM2 was 70% complete and Marsa Maroc would start equipping its handling facility in the next 18 months to two years.

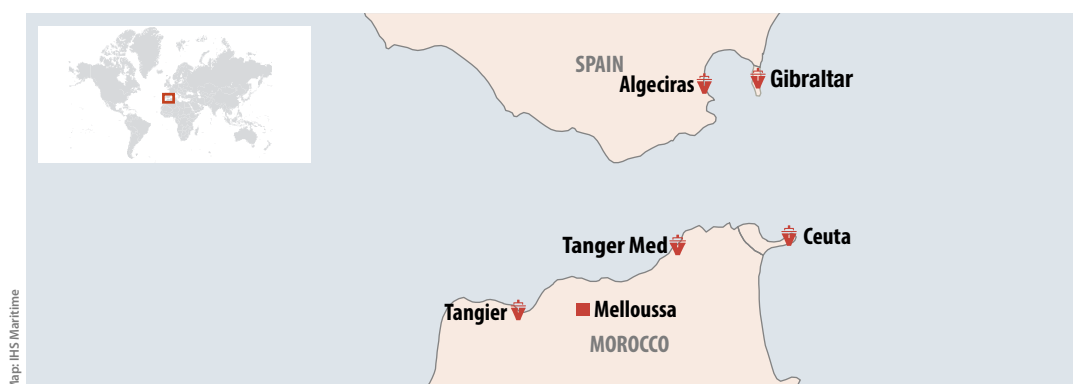
On the breakwater opposite the current container terminal is an oil products jetty that can accommodate carriers up to 280m. The jetty is connected by pipeline and railtrack to a terminal with 19 oil storage tanks with a capacity of 508,000m³. On an annual basis, the oil products terminal can store 4.5M m³, of which just over a million cubic metres are intended to ensure security of supply for Morocco's domestic market.

A port spokesman said Tanger Med will continue to focus on oil products in the future and an LNG terminal will be located elsewhere. According to Moroccan government proposals, a LNG regasification facility is planned for the Atlantic port of Jorf Lasfar, south of Casablanca, with a planned initial capacity of 5Bn m³ in 2018, which is expected to double by 2022.

Renault, which has a manufacturing plant at Melloussa with a rail connection to Tanger Med, has invested in a car terminal adjacent to the APMT concession. Renault has two berths at its disposal fronting a 13ha terminal for its vehicles – mostly for export. Next to the terminal is a smaller common-user area for other car makes.

“Foreign investment has been attracted to Morocco by its favourable trade policies including free zones and incentives for foreign companies. These companies are also attracted by a young, skilled and competitively priced workforce that will stand Morocco in good stead for the future,” Najlaa Diouri, the port authority's general manager, told *P&H*.

Diouri said Tanger Med had several clear advantages over the well-established ports of Europe's Mediterranean seaboard: “We have here a deepsea port offering minimum deviation for global operators, with up to 18m of draught that certainly gives us an advantage over older European ports that cannot accept the biggest ships sailing today. And deepening those ports is now a more lengthy and complicated process because of technical difficulties and the EU's strict environmental criteria.” **PH**



Map: IHS Maritime

EU aids LNG development



Photos: Port of Antwerp

LNG barge *Greenstream* fills a ship's bunkers at Port of Antwerp one morning in July

The European Union has announced its intention to invest in greener shipping by encouraging use of liquefied natural gas (LNG) as a bunker fuel. It is expected to contribute to the creation of LNG bunkering infrastructure at three major north European ports – Gothenburg, Rotterdam and Antwerp.

The Swedish port of Gothenburg said in July it was progressing plans to open an LNG terminal in 2015 after the European Commission recommended that the project receive a 305M kronor (\$47M) subsidy. This is nearly a third of the estimated €116M (\$156M) price tag attached to the 20,000m³ facility being planned by Dutch gas storage firm Vopak and Swedegas, owner of Sweden's gas grid.

The Port of Gothenburg says that its LNG terminal will be in the top list of the Motorways of the

Sea projects to be examined by the European Parliament when it returns from recess in late August. The formal decision is expected within a few months.

The Gothenburg terminal will supply LNG to both shipping and industry. The consortium announced that it would make the terminal available to any

energy company looking to reserve capacity to supply the Swedish market.

The Port of Gothenburg has already signed a co-operation agreement with the Port of Rotterdam to create a common set of rules on how LNG is handled and to speed up the development of LNG as a marine fuel.



Gothenburg added that when its terminal is completed in 2015, gas will be collected from a variety of sources, including the GATE import terminal at Rotterdam.

Meanwhile, Antwerp Port Authority has also received positive news from the EC about its application for a subsidy that will mainly be used to develop an LNG bunkering station for barges in the Port of Antwerp.

The preparatory study work for the station has already started, and the objective is also to have it in operation by the end of 2015. The details for the granting of the subsidy and how exactly it will be used will be announced later.

In July, the port of Antwerp also announced that a second LNG-powered barge *Greenstream* had started bunkering in the port. The first, *Argonon*, carried out its first LNG bunkering operations in Antwerp last December. However, the port told *P&H* that for the time being it foresees ships mainly being bunkered with LNG using shoreside trucks.

All three ports hope to have their LNG facilities operational by 2015, when stricter IMO regulations for sulphur content of ships' fuels come into force.

By giving these subsidy applications a green light, the EC has demonstrated confidence in LNG as the maritime fuel of the future.

Onshore power supply is one project being researched as part of WPCI

More info: www.onshorepowersupply.org

Notable numbers

36,400

journeys that can be made by a 4,000teu box ship if using the SCR, and NSR for 105 days

27%

the percentage of global installed offshore wind capacity currently in China



The Maritime Labour Convention aims to ensure seafarers get a fair deal

Fair deal for seafarers

The Maritime Labour Convention (MLC), also known as the Seafarers' Bill of Rights, came in to force in August, bringing with it fundamental changes to employment conditions and powers of redress.

Significant financial and contractual changes are now required. The convention combines 37 International Labour Organization (ILO) conventions, and should even out the commercial playing field for shipping companies. At time of writing, 43 countries had ratified the convention, and it is enforced by port state control (PSC) officers in these ratifying countries. The aim of the convention is to ensure fair and decent work for seafarers globally and to root out noncompliant operators and stop them from undercutting their competitors through slashed prices.

The MLC does not apply directly to shipowners and operators but

to flag states, which must create national laws adopting the regulations set out in the convention and that comply with the minimum standards.

There are some areas, however, which are still being worked on by the ILO, lawyers and the industry, that could cause problems initially. Paul Newdick, a partner at Clyde & Co, London, said he had worked with the shipping industry on MLC provisions for six years but it had not taken them seriously until 1 January 2013. "There is a shift in terminology and responsibility caused by the MLC. The traditional ways of operating may not change in practice, but the contractual arrangements are going to need to change. There needs to be a clear expression of where responsibility lies for MLC compliance and where recourse can be sought if there is a

breach, and having indemnification provisions within the relevant contract."

Panamanian class society ICS Class recently published a list of top 10 MLC deficiencies, based on observations by its surveyors. ICS Class principal surveyor, marine, Frank Marmol, said that all 10 would be detainable offences in Panama. One of them is having the name of the registered shipowner and not of the actual shipowner on the documentation to be inspected by the MLC states.

Under the convention, the shipowner has assumed full responsibility for the ship's operations. The shipowner is not the registered owner, which could be a totally separate company from the one actually responsible for the ship.

As the MLC's definitions of 'seafarer' and 'shipowner' are a cause of consternation, the ICS Class stated: "It is very important

to keep the definition of 'shipowner' the same in all maritime instruments."

Newdick said the situation would not be straightforward: "There will be an issue as to whether a crew manager or a technical manager has caused the breach, whether they are defined as 'shipowner' under the MLC or not; and in relation to charterers: if they have put personnel on board may make them 'seafarers', but the shipowner does not treat them as seafarers and a problem arises where this issue causes a delay at a port during an inspection, is the charterer or the ship owner liable for that?"

Chief among flag state responsibilities is inspecting ships to ensure compliance with the MLC's regulations. If it is satisfied, the flag state issues the ship with a Maritime Labour Certificate.

Without this certificate – and without the corresponding Document of Maritime Labour Compliance (DMLC, parts I and II, which demonstrate a ship's ongoing compliance) – a ship will be held for inspection. Such a delay can be costly and, according to Clyde & Co, will have an "impact on charter party requirements and obligations".

Shipowners are concerned about how different PSCs will interpret the MLC. The convention states that a ship's master is responsible for ensuring that the ship maintains MLC standards.

Does this mean that full responsibility for a ship's MLC compliance falls on the master and not on the shipowner? "A lot will depend on how PSC is policed in different jurisdictions," said Newdick. "Some are prepared to put blame on an individual master, others would consider it more an institutional issue."

More info: www.ilo.org

500,000

the approximate number of immigrants that try to reach Europe via Morocco each year

10

MW wind turbines are expected to come online in the future

Piracy: protection at anchor and alongside

Up until the end of July just over 150 acts of piracy had been reported in 2013 to the International Maritime Bureau (IMB). Of these 53 had been attempted whilst the target vessel was under way. The majority, 83 in total, occurred when vessels were anchored, arguably the point at which they are most vulnerable, piracy expert Dr Dave Sloggett told *P&H*. Only 16 of the attacks occurred when the vessel was actually alongside at berth.

The deployment by many shipping companies of armed security guards aboard vessels that are under way in international waters is having a marked impact on levels of piracy in the Indian Ocean, believes Sloggett. But the practice has yet to be consistently adopted in places such as the Gulf of Guinea. In time as the practice becomes more widespread and local maritime security arrangements are improved the attacks on vessels at sea and at anchorages are likely to decrease, he believes. What then happens to the patterns of piracy? Will they move inshore and focus their efforts on berthed vessels?

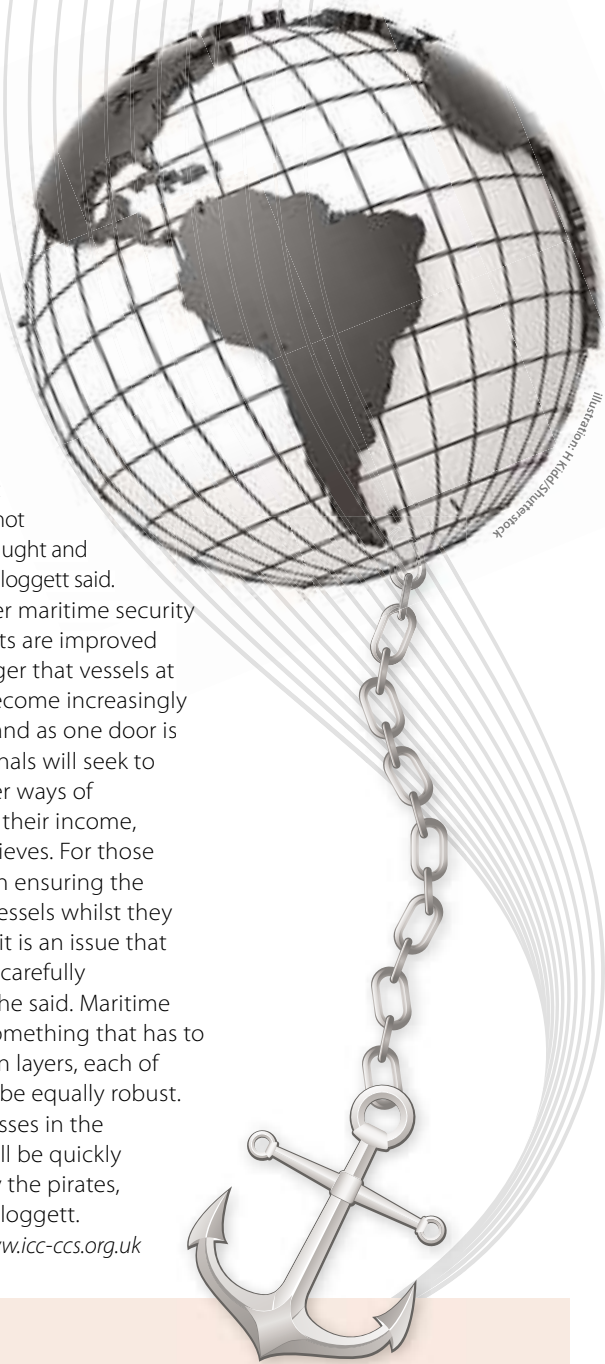
The 16 attacks that occurred against berthed vessels in 2013 show no obvious geographic pattern, said Sloggett. It is a problem that has been reported from Ecuador, Peru, Guyana, the west and east African coasts, through Chittagong, Vietnam and Indonesia. Attacks nearly always take place during the hours of darkness, although four of those reported have occurred in broad daylight. Two of these took place in Indonesia, one in Egypt and one in Ecuador. Prompt action by the duty crew saw many of the attacks disrupted with the would-be robbers fleeing quickly from the scene, he said.

For many port authorities any success in reducing the levels of piracy at sea poses a worrying dilemma, said Sloggett, adding that it is unlikely that those engaged in piracy are simply going to give up. Many resort to such activities for purely personal motivations, like feeding their families. Few have wider connections with criminal gangs. Many of the attacks are *ad hoc* in nature with those involved occasionally getting away with some of the crews' valuables. Acts

of violence against seafarers when their vessels are berthed are rare. Such opportunistic criminals do not want to be caught and imprisoned, Sloggett said.

But if wider maritime security arrangements are improved there is danger that vessels at berth will become increasingly vulnerable, and as one door is closed criminals will seek to explore other ways of maintaining their income, Sloggett believes. For those charged with ensuring the security of vessels whilst they are berthed it is an issue that needs to be carefully considered, he said. Maritime security is something that has to be built up in layers, each of which must be equally robust. Any weaknesses in the approach will be quickly identified by the pirates, concluded Sloggett.

More info: www.icc-ccs.org.uk



African countries agree piracy code

The Code of Conduct concerning the prevention of piracy, armed robbery against ships and illicit maritime activity in west and central Africa was formally adopted on 25 June, with 22 signatures from heads of state. Angola, Benin, Cameroon, Cape Verde, Chad, the Congo, Cote d'Ivoire, the Democratic Republic of the Congo, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Equatorial Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Sao Tome and Principe and Togo, have signed the code, said IMO in a statement.

IMO Secretary General Koji Sekimizu welcomes adoption of the new code, saying: "I am fully committed to assisting western and central African countries to establishing a

workable, regional mechanism of co-operation for enhanced maritime security. Maritime development is an essential component of African development and maritime zone security is fundamentally important".

In the same month the Nigerian Navy together with the US Office of Security Cooperation met in Cross River State, Nigeria, to address piracy in the region. Nigeria's Defence Minister says Nigeria is taking the issue seriously as it steps up its security measures in the Gulf of Guinea. Speaking in London Hon Erelu Olusola Obada said: "The Nigerian government has issued fresh instructions to the Nigeria Navy in line with the new strategic framework for addressing the challenges of piracy."

Notable numbers

31.6M

number of teu handled in Singapore in 2012

43

countries have ratified the Maritime Labour Convention

Moor safely, says IMCA

The International Marine Contractors Association (IMCA) has introduced a new safety poster on mooring safety that graphically explains the hazards that can be incurred during mooring operations. The cartoon-style messages can be understood in any language and include:

- Always look where you walk
- Don't lose your head! Beware of snap back zones
- Make sure that all grating and supports are in good condition
- Always wear the proper personal protective equipment (PPE)

It is the twelfth in IMCA's series of safety posters and is designed to complement IMCA's existing document *Mooring Practice Safety Guidance*.
More info: www.imca-int.com



Easing the way in the EU

The European Commission announced plans in July to ease customs procedures for ships at EU ports which it says will make a single European shipping market a reality for the first time by 2015. In a communication published under the title, 'Blue Belt: A Single Transport Area for Shipping', the commission says that realisation of a single shipping market in the EU is being prevented by the fact that vessels moving between different EU countries are treated at ports of arrival as if they came from outside the EU.

To overcome this, it makes two "key" proposals for reducing customs formalities through amendments to the existing EU customs code. The first concerns vessels operating on a regular route within the EU and transporting mainly EU goods. Lighter customs procedures already available to these vessels will be made faster and more flexible, the commission says.

The second applies to vessels calling at EU and non-EU ports and transporting EU and non-EU goods. The commission says that it

will put forward before the end of the year a proposal to create a harmonised electronic cargo declaration or eManifest which will enable customs officers to distinguish between EU goods qualifying for speedy discharge and non-EU goods subject to longer customs procedures.

These measures now need to be approved by EU member states and the European Parliament but the commission said: "It is expected that these two measures will make the Blue Belt a reality by 2015."

Venice to power up with added infrastructure

Venice cruise terminal Venezia Terminal Passeggeri (VTP) announced plans in July to install infrastructure to supply shoreside power at its terminal.

Its plans for the project were filed with Venice Port Authority on 16 July. VTP said in a statement that the Tagliamento quay will be involved in the project as well as buildings 107/108 and 109/110.

"On completion, electricity will

be supplied directly from the national grid to two or three ships simultaneously. The project has taken 15 months to complete, at a cost of around €20M [\$26.5M]," it said. The port said OPS reduces CO₂ emissions by more than 30% and NO_x and particulate matter by more than 95%.

Venice cruise terminal is readying itself for onshore power



2015

the year Port of Antwerp's LNG bunkering station should be operational

97%

of Chinese port operators stayed afloat in 1H2013



Photo: Port of Amsterdam

A tour of the Port of Amsterdam will round up the Africa/Europe Regional Meeting in November

Port of Amsterdam hosts regional meeting

Port of Amsterdam cordially invites members to the port city for the IAPH Africa/Europe Regional meeting from 20 to 22 November this year. The event's theme is 'Our ports of the future: developing the potential' and the host – Port of Amsterdam – hopes it will provide a forum for regional ports to find

opportunities to collaborate (see Last Word, page 48).

It is also a great opportunity to catch up on a wide range of important port issues, including an update on the World Ports Climate Initiative (WPCI). (See information box opposite).

The historic city of Amsterdam will provide a great backdrop to this event and is in itself worth a visit. It is rich in art history and boasts numerous museums and galleries in which you can

appreciate some of the great masterpieces. Its atmospheric streets and lanes make it perfect for exploration by boat or bike.

Museums include the Hermitage Museum, Anne Frank House, Van Gogh Museum and of course the Rijksmuseum containing Rembrandt pieces. Information on how to register will be made available to the IAPH membership soon.

More info: www.iaphworldports.org; www.portofamsterdam.com; www.holland.com; www.nh-hotels.com

The event info

The event will be held in the conference room at the Barbizon Palace Hotel and the programme is as follows:

Wednesday 20 November:

2.30-4.30pm: Africa/Europe Regional meeting

5.00 pm: Welcome reception

Evening: Free for members to have dinner in the city

Thursday 21 November:

Conference part 1: Developments in ports – from landlord to multi-development in ports

Conference part 2: Logistics

Conference part 3: Infrastructure and environment

Evening: Dinner in a beautiful setting

Friday 22 November:

Morning: tour of the Port of Amsterdam followed by a goodbye lunch



Frederic Dagnet from Port of Marseille calls all port personnel with relevant experience to get involved in his committee

Your technical committee needs you

The association's technical committees represent the true backbone of IAPH activity. The Trade Facilitation and Port Community Systems (PCS) Committee is one of nine technical committees and would like to invite all port authorities and terminal operators to join the committee to share their experiences and knowhow in the area of trade facilitation and PCS.

To apply, please contact the committee's chairman, Frédéric Dagnet from Grant Port Maritime de Marseille, France. His email address is Frederic.Dagnet@marseille-port.fr or alternatively email the IAPH secretariat at info@iaphworldports.org

To see the committees' current activities please visit the committee room at: www.iaphworldports.org/CommitteeRoom.aspx

► Women's forum

Success in a man's world

Naomi Kogon-Steinberg was instrumental in creating the Women's Forum that was inaugurated in Jerusalem in May 2012. Her interest in ports was developed through her legal career that took her from Israel and France to the United States.

I started my career in the mid 1960s as a young corporate and contract lawyer for the largest industrial conglomerate in Israel. It controlled a vast part of the Israeli heavy industry and was trying to expand internationally. Being the only lawyer who could draft contracts in English, I

was given very responsible assignments and I learned a lot in areas such as international commercial negotiations and transfer of knowhow in various industries. I also came to realise what it meant to be a young senior woman in a 'man's' world.

Several years later, I decided to get an MBA and went to the European Institute of Business Administration (INSEAD) in Fontainebleau, France. I was hoping to become the first woman plant manager in our company, but that never happened. Instead, I worked for several industrial companies and in 1979 was hired by the Israeli Ministry of Defence to be the internal controller of the international project to build two airbases as part of the Camp David Peace Accord.

That is where I met Bory. We got married and he brought me to the US. When he retired from the US Army Corps of Engineers, we set up Steinberg & Associates – a small consulting firm engaging in water resources management. Some of our first clients were ports and I quickly came to appreciate how important ports are to the local and world economy.

The executive director of one of the ports that we worked with was active in IAPH and tried to convince us to join the association. It took him a few

years and in 1999 we joined. In retrospect, I am sorry we did not join earlier. He even pointed out to us which committees he thought we should join and pushed me to join the Communications Committee.

Attending meetings of our clients and various port conferences, including those of the American Association of Port Authorities (AAPA), it struck me how few women attended and how few were actually active in committees or otherwise. For instance, at the festive afternoon seminar held in Tokyo in 2005, which started off the IAPH 50th anniversary year, there were about 300 men, most of them in dark suits, and only four women, none Japanese.

We have very few active women on the committees and currently there is not one woman on the Executive Committee.

It took me a while to decide that something needed to be done about encouraging women to start looking at the maritime industry as an interesting, challenging, and rewarding workplace. I approached a few women at the conference in Busan and, for the most part, the reactions were very positive. Thus, we started the IAPH Women's Forum. Our mission is to advance and empower women in the industry and we hope that this will also attract more women to be active in the association itself.

Naomi Kogon-Steinberg

joined IAPH in 1999 and is co-chair of the Long Range Planning and Review Committee and the founding chair of the Women's Forum

“ In retrospect, I am sorry we did not join IAPH earlier ”

Photo: Bory Steinberg

Post our new logo on your website

IAPH's beautiful new logo was unveiled at the 28th IAPH World Ports Conference held in Los Angeles last May.

This new logo was adopted as it represents co-operation and unity within the world ports industry. All members of the

association are most welcome to post the new logo on their websites. To request the logo, please contact the IAPH secretariat at: info@iaphworldports.org

Your co-operation in raising awareness about IAPH is very much appreciated.



IAPH
International Association
of Ports and Harbors



Port in profile

Name: Port of Amsterdam

Country: The Netherlands

Type: Deep sea port and logistics hub, that handles liquid and dry bulk, cruise and container traffic

Tonnage handled in (imports, exports and transhipment) in 2012: 77,058,000 tonnes

Ports: Situated in the North Sea Canal the port comprises Amsterdam, IJmuiden, Beverwijk and Zaanstad

Major commodities handled: Coal and coke, fodder and oil seed, oil refined products, sand gravel and minerals, chemical products, fertilizers and cocoa.

Size: 2,600 hectares.



Tenders and agreements: calling all members!

The IAPH Port Economics and Finance Committee in collaboration with the American Association of Port Authorities (AAPA) and European Sea Ports Organisation (ESPO), as well as with other internal IAPH professional committees, is preparing a handbook for port authorities on best practices in regard to terminal operator tenders and agreements. The project will be undertaken by various working groups, which will analyse different elements of such tenders and contracts and highlight best industry practices.

Other than a general acknowledgement of ports co-operating in the study, we aim to maintain confidentiality in regard to the source of practices and text cited in the work and will make every effort to delete text that might identify the source.

Your assistance in this important effort would be appreciated in two ways:

1. Provide the name of the individual in your organisation responsible for managing concession tenders/contracts
2. Send a copy of a recent operator tender/contract. Knowing that the commercial elements of such documents may be deemed confidential for competitive

reasons or others, we understand that specific charges, numbers, and data might be deleted by you before forwarding the documents. It would be especially helpful if such documents are provided in Word format after deletion of such confidential data.

If a member of your staff is willing to dedicate time to participate in this effort, we welcome their involvement. When we have received the documents from participating ports, our intention is to break these into sections and then disperse them between the relevant working groups such as commercial, legal, environmental, operational, engineering, maintenance, and safety/security for analysis.

We are confident that when complete this handbook will be an important tool for port authorities when preparing tenders and contracts, and so we look forward to your participation in this effort.

Should you have any questions, Dov Frohlinger, chairman of the Port Economics and Finance Committee, would be pleased to speak with you. Your co-operation is appreciated.

Please phone: +972-50-7842669.
Or please forward your documents to dovf@israports.co.il

Correction

The first name of Dr Egashira was misspelled on p41 P&H July/August 2013. His correct name is Kazuhiko Egashira.

Membership notes

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

New Regular member

**Marine and Water Bureau,
Government of Macau, SAR**

Telephone: 853-2855-9922

Address: Calçada da Barra Quartel dos Mouros,
Macau (P.O. Box 47), CHINA
Fax: 853-2851-1986

E-mail: info@marine.gov.mo
Website: www.marine.gov.mo
Representative: Ms Wong Soi Man, director



Photo: Port of LA

Los Angeles in May... Masahiko Furuichi presents the report to members

Vice chairman wins prize for Arctic shipping presentation

Dr Masahiko Furuichi, vice chair of IAPH's Port Planning and Development Committee (PPDC), received the Maritime Economics and Logistics Best Paper Prize at the International Association of Maritime Economists Conference, held in Marseille in July this year. His paper: *Cost analysis of the Northern Sea Route (NSR) and the conventional route shipping*, was based on a two-year study carried out as part of the PPDC's work plan.

The report from the study can be found on the committee room pages of the IAPH website. Please also see pages 33-35 of this issue for an overview.

Co-author of the report Dr. Natsuhiko Otsuka also presented the report at the International Conferences on Port and Ocean Engineering under Arctic Conditions (POAC), held in Helsinki in June this year, in his paper, *Study on feasibility of the Northern Sea Route from recent voyages*.

The authors' aim was to promote and disseminate IAPH's activities within the worldwide maritime and port-related industries, by acknowledging that the papers presented materialised through IAPH's financial support and technical committee members' co-operation.

Dates for your diary

A selection of forthcoming maritime courses and conferences



September

- 23-27:** PIANC Smart Rivers 2013 – Maastricht, Netherlands
www.pianc.org
- 24-27:** NEVA 2013 – St Petersburg, Russia
<http://neva.transtec-neva.com>

October

- 1-3:** TOC Container Supply Chain: Americas – Miami, USA
www.tocevents-americas.com
- 8-9:** Port Finance International Asia – Singapore
www.portfinanceinternational.com/events/pfiasia
- 8-10:** Intermodal Europe – Hamburg, Germany
www.intermodal-events.com
- 9-10:** Green Ports Congress – Antwerp, Belgium
www.greenport.com/congress
- 13-17:** AAPA Annual Convention – Canaveral, USA
<https://aapa.getregistered.net/home>
- From 14:** Fundamentals of Maritime Trade & Transport – distance learning
www.lloydsmaritimeacademy.com/event/maritime-trade-and-transport-distance-learning
- 14-25:** Inland Waterways Transport (IWT) – Antwerp, Belgium
www.portofantwerp.com/apec
- 21-25:** Seminar on Dredging and Land Reclamation – Singapore
www.iadc-dredging.com
- 23-24:** 8th Southern Asian Ports, Logistics and Shipping 2013 – Mumbai, India
www.transportevents.com

November

- 4-5:** PMAESA 40th Anniversary Celebrations & Annual Conference – Durban, South Africa
www.pmaesa.org
- 4-15:** Port Engineering (PE) – Antwerp, Belgium
www.portofantwerp.com/apec
- 13-14:** Transport Security Expo – London, UK
www.transec.com/Content/Welcome/14/
- 20-22:** IAPH Africa/Europe Regional Meeting – Amsterdam, Netherlands
www.iaphworldports.org
- 21-22:** 11th Intermodal Africa South 2013 – Port Elizabeth, South Africa
www.transportevents.com



**We value
your opinions**

Do you have strong views about any of the articles in *Ports&Harbors*? Are there other industry issues you feel strongly about?

Email your views to ph@iaphworldports.org and we'll be happy to include them



Photo: Port of Amsterdam

Developing potential

Port of Amsterdam CEO **Dertje Meijer** looks forward to welcoming IAPH members to the regional meeting in Amsterdam in November in order to strengthen connections and share ideas

“How can we meet each other economically, nautically and technically and strengthen one another?”

The city and port of Amsterdam have been interlinked since the 13th century. At the point where the sea, land and estuaries meet, the port and trading centre emerged. Enterprising people could see the opportunities and headed for this natural junction. This gave the region value and, in turn, a commercial city was created.

Amsterdam became a cosmopolitan centre where goods, money, people and ideas got together and circulated freely. It was the Dutch ‘golden age’. The Dutch capital developed into a versatile business and financial meeting point and a sanctuary for art and culture. And it all started with the port, which today is the symbol of our prosperity and existence as a trading nation.

In April 2013 the port corporatised and is now a governmental public limited company, with the city of Amsterdam as its full shareholder. Port of Amsterdam is now sailing its own course. It is more decisive than ever, with a new organisational structure that allows it to boost economic activity and meet global developments as well as market demand more efficiently. Its mission is to create ground-breaking value.

To achieve this, and as a port of partnerships, we have been seeking joint ventures at local, regional, national, and international level. We are convinced that it is the only way to follow new routes and ensure sustainable growth. Based on meetings, joint explorations and collaboration, we will continue to add value for the port and for our partners.

We must study the future together. In this age of globalisation, together we should discover where opportunities are hidden and study this potential. But how can we ‘meet’ each other economically, nautically and technically and strengthen one another? This is the theme of the next IAPH regional meeting for Africa and Europe, scheduled to take place from 20–22 November in Amsterdam under the theme ‘Our ports of the future: developing the potential’.

Numerous connections exist between Europe and Africa. We invite you to join us in Amsterdam and exchange ideas about the possibilities these connections have to offer. We look forward to welcoming you to Amsterdam. **RI**

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