

November 2008 Vol 53 No 6



# PORTS HARBORS

Official Journal of the International Association of Ports and Harbors

## Ports and people

Can they co-exist in harmony?

## Shore to ship

The common language of Seaspeak

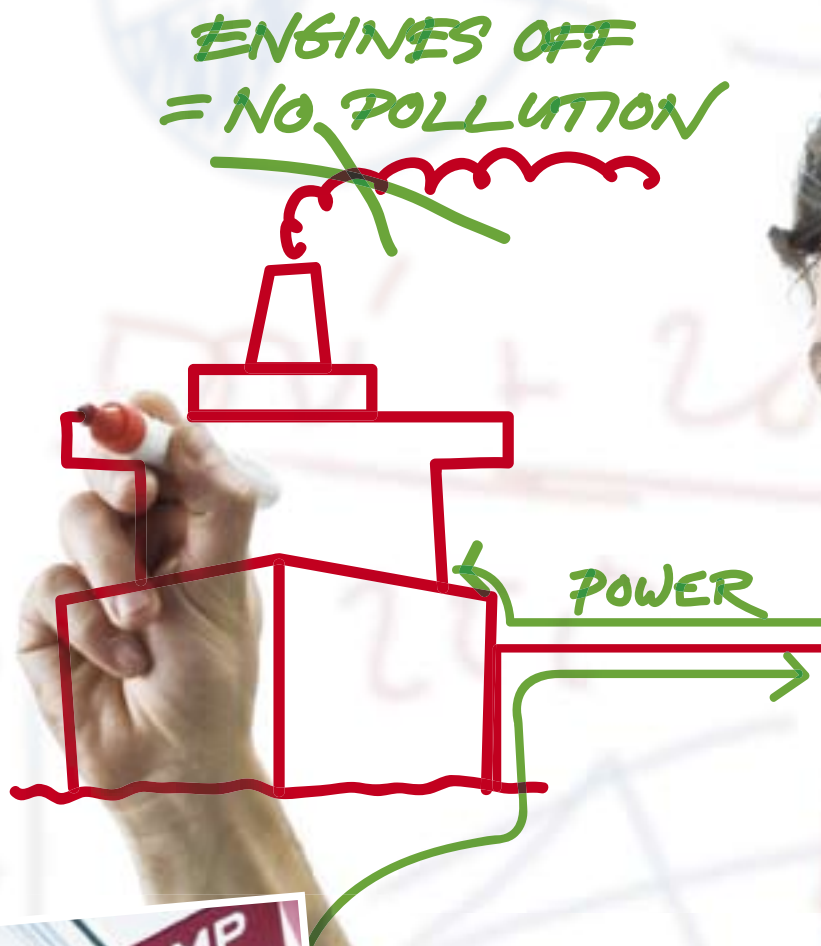
## Waste away

EU directive redefines sediment

# Training for tomorrow

Developing nations must keep up with containerisation

# “Fresh thinking can lead to fresh air.”



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Not every element of a port can be automated. Port personnel training is as important today as it ever has been

Photo: Ken Seet/Corbis

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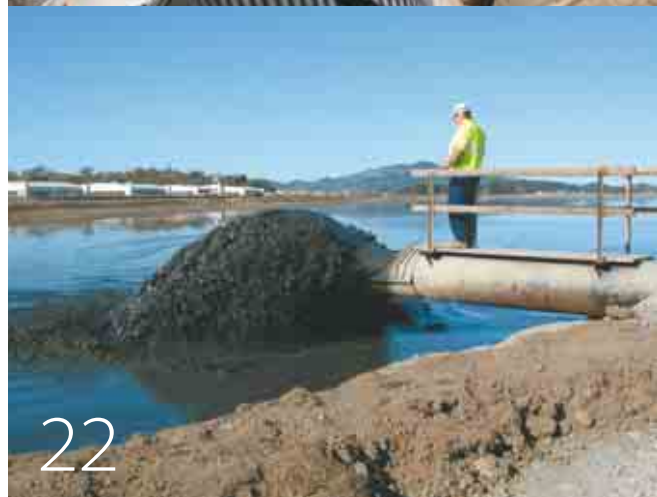
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# THE CONTINENTAL GATEWAY

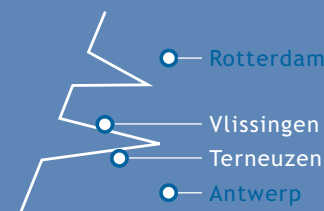


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The seaports of Terneuzen and Vlissingen form a link with the other continents. They guarantee a fast flow of goods due to their good accessibility, their location on deep seawater and their excellent facilities. Strategically they are located between Rotterdam and Antwerp. The ports of Terneuzen and Vlissingen, situated at the entrance of the River Scheldt, benefit from excellent connections with the hinterland. Customer friendliness, tailor-made solutions and a wide variety of possibilities for transport and processing are characteristic for these modern seaports. The port authority, Zeeland Seaports, stimulates the strong points of both ports so that they can maintain their position as 'the continental gateway'

# PORTS HARBORS

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## PORTS & HARBORS

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# Mutual partnership

In this age of globalisation, ports and cities need to work together for the benefit of both parties

Last month I was in St Petersburg, the maritime capital of Russia. Over the past three centuries, the delta of the River Neva has developed into Russia's 'window on Europe' and exhibits a fascinating combination of economic dynamism and historical heritage. Today, however, the Port of St Petersburg is facing serious space constraints.

As Russia's maritime gateway, St Petersburg handles the largest share of the country's international sea-borne cargo, ranging from dry and liquid bulk through break bulk to container traffic. Recent rapid economic growth in Russia has boosted port throughput. For instance, container traffic has increased from 300,000 teu in 2000 to 1.7M teu in 2007, accounting for over half the national total of 3M

teu. More than 400 cruise ships are calling at the port every year. The scope for further expansion is limited, though, because the port is physically confined and surrounded by urban areas.

The port has therefore started to develop a new complex at Ust-Luga, about 100km away, and is building a modern cruise terminal on a huge reclaimed site on the city waterfront. These plans are aimed at ensuring that

port activities can continue in harmony with this historic city. The port will need to work closely with the city planning authorities.

Most of the world's ports are facing similar challenges in the port/city relationship. In this new age of globalisation, ports need to restructure themselves in terms of space and function. This should bring about a mutually sustainable cycle of higher quality and dynamism, whereby port and city closely reinforce each other. This requires an innovative approach, integrating not just economic and financial factors but also cultural, historical, environmental and aesthetic benefits.

The IAPH Committee of Port Planning and Development is tackling the issue of port redevelopment from this perspective. Several redevelopment projects for reshaping relations between port and city have been planned and are being implemented. I invite you to join the committee and bring to it your experiences and lessons so that they can be shared among the world's ports. PH

“Most of the world's ports are facing similar challenges in the port/city relationship”



**Dr. Satoshi Inoue**  
Secretary General – The International Association of Ports and Harbors

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## Port updates

### HATS OFF TO FEDORA

Port of Charleston's Union Pier Terminal was pleased to receive the world's largest car carrier on its maiden call on 11 September.

The *Fedora*, a large car truck carrier operated by Wallenius Wilhelmsen Logistics, was delivered earlier this year and sails between the US east coast and northern Europe.

Charleston is being featured as a weekly call in the service, providing much-needed capacity in the export trade from Charleston to north Europe. With the new service, seven Wallenius Wilhelmsen Logistics vessels a month call at the port.

### ONSHORE SOLUTION

The US Maritime Administration is providing funding that will help the breakbulk and fishing port of New Bedford, Massachusetts, install an onshore power supply (OPS) system in a bid to improve the coastal community's air quality.

The \$150,000 investment will be used to research the efficacy of OPS, focusing on port service or areas where OPS might realistically be employed, as well as on alternative energy sources that might be better for the environment. "The Maritime Administration is working on a number of government-industry partnerships to address air quality issues," said maritime administrator Sean Connaughton in a statement.

### SCOTS' BIG LIFTER

Logistics services provider Port Services Group is investing £4.5M in purchasing the largest mobile crane ever to be based in Scotland.

It is hoped that the 1,000-tonne Terex-Demag TC2800-1 crane, to be based in Aberdeen, will provide a major boost to the group's heavy crane division and its role in heavy-lifting services to the UK offshore sector.

Although primarily expected to service the group's core oil and gas sector business, it is hoped the new crane will be useful for work in other types of industry, including areas such as renewable energy, petrochemicals, and rail, road and general construction.



Photos: Port of St Petersburg

St Petersburg: building on its growing cruise business

## New port for St Petersburg

A new passenger terminal in St Petersburg, Russia, received its first tourists on 10 September. It has been built on newly reclaimed land in the western part of Vasilievsky Island, close to some of the best-known tourist sites in the historic city.

The terminal's first visitor, the 300m-long *Costa Mediterranea*, arrived at the pier just before 9am on 10 September.

The world cruise industry has a stable growth of 8–10% a year. Cruises in northern Europe – the

most dynamic part of the market – have been rising at 25% annually. Cruise passengers visiting St Petersburg have doubled over the past three years, from 163,000 to 336,000. By 2011 those figures are likely to reach 430,000–450,000, which would exceed the capacity of the existing facilities. The new port's eventual throughput will be 12,000 passengers a day, equivalent to 1.2M passengers a year.

There are no specialised passenger ports in Russia, with the

result that passenger ships have to berth next to freight vessels.

The St Petersburg Marine Commercial Port operates in this mixed mode, but until recently it was the only berth in the city capable of receiving large passenger vessels. The Vasilievsky cruise terminal provides a totally new level of comfort for passengers, the port claims.

St Petersburg governor Valentina Matvienko was present to see the arrival of *Costa Mediterranea*, along with transport ministry official Alexander Davidenko. Morskoi Fasad Sankt-Peterburga (St Petersburg Sea Facade), the management company for the cruise port project, said that it built the first phase of the terminal at Vasilievsky Island, comprising two 9m draught berths, in two years.

By 2011, the cruise facilities should include another five berths, with a total length of 2km, the company said.



*Costa Mediterranea* gets colourful reception

## Bahrain integrates new port development

The Kingdom of Bahrain is bringing a new port development into commission in December. The container facility will be named Khalifa Bin Salman Port and have a capacity of 2.5M teu.

Bahrain can already boast some significant names among its maritime customers. Logistics giant DHL has chosen the kingdom as its local hub and the new port will be managed by APM Terminals. The port is adjacent to the Bahrain Logistics Zone (BLZ) and only 13km from the international airport – the closest any airport is to a large port facility in the Gulf region.

The port and its approaches have been dredged

to 15m to cater for some of the larger container ships in service.

Bahrain is linked by road to Saudi Arabia by a causeway and work on a second causeway, to Qatar, will start in January. The new port is well placed for feeder lines to serve other nearby Gulf countries.

Bahrain Economic Development Board CEO Shaikh Mohammed bin Essa Al-Khalifa expressed his delight with the new development. "It is exciting that the kingdom is enhancing its already strong logistics infrastructure with the developments at the Khalifa Bin Salman Port," he said.

## Business for Djibouti

The developing economy of landlocked Ethiopia is one of the main reasons for the development of Port of Djibouti's new Doraleh Box Terminal. The new offshore port is situated just off the coast, 11km away from the existing facilities, and involves an investment of \$400M. By contrast, Djibouti's own export/import requirements have little need for the development, but its strategic location makes it well suited to handling other countries' cargo.

"Ethiopia has created a boom here, it is a very positive development for Djibouti," said Nalin Kothari, the managing director of local ship agent J J Kothari. Ethiopian trade accounts for 85% of the import/export through Djibouti, added Jerome Oliveira, CEO of Djibouti Port.

Kothari continued: "We are busy because Ethiopia is [experiencing] a big surge and is importing. Lots of infrastructure-building is being

done because the economy is doing well. There is a lot of investment; they are liberalising their economy."



Photo : PMAESA

**Port of Djibouti develops to meet demand from Ethiopia**

## Third-lane cash plan on track

Panama Canal Authority (ACP) has made public the \$2.3Bn financing structure that will cover a portion of the \$5.25Bn cost of its programme to add a third lane for transit of post-Panamax vessels.

ACP administrator Alberto Alemán said that it had been decided to accept offers from five multilateral agencies. The European Investment Bank will provide \$500M, Japan Bank for International Co-operation \$800M, Inter-American Development Bank \$400M, International Finance Corporation \$300M and the Corporación Andina de Fomento \$300M. "We are looking at an average interest rate of 5.49% with a 20-year amortising period including a 10-year grace period," said Aleman. "We have agreed upon equal terms with all the multilateral agencies". The canal plans to cover the rest of the financing with its cash flow.

Alemán said that no decision had been taken about raising tolls next year. The last toll increase took place in 2006, with the 30% increase being spread over a period of three years. ACP had previously announced that it would revise tolls every three years.

"We are confident that this financing package will provide the financial backing the ACP needs for the expansion programme," said Alemán. "This signifies complete trust and confidence in the solid financials and management of the ACP and the strength of the Panamanian economy," he added. The participation of the multilateral agencies shows they have confidence in the project being well-structured and the import role the canal plays in the world economy and global trade, Alemán concluded.

## Port updates

### SINGAPORE SPILL GUIDE

The Maritime and Port Authority of Singapore has issued guidelines to prevent oil spills during bunkering and avoid costly clean-up operations. *Port Marine Circular Number 18* explains reasonable precautions and action that should be taken by the ship receiving the bunkers and those supplying it, covering mooring, supervision, communication and fire-fighting.

### ZHANJIANG ORE BERTH

China's Zhanjiang Port is said to be adding a 300,000dwt iron ore berth by 2011. Zhanjiang is partnering with China Shipping Development, Tramp, Mastee and Zenith to complete the project. Tramp will be in charge of transporting iron ore for Mastee and Zenith from the Zhanjiang's port to ports along the Yangtze River. Between them Mastee and Zenith plan to import more than 5M tonnes of iron ore per year.

### BUNKER BOOSTER

The Sri Lanka Ports Authority plans to expand its bunker storage facility to ensure better availability of marine fuels. The tank farm near the Port of Colombo has 30,000 tonnes capacity – enough to store about two months' requirements of bunker fuels. Acting chairman Priyath Wickrema said the authority plans to add two more storage tanks of 10,000 tonnes each to meet increased demand for storage.

### QIHAI WATERFRONT

An industrial waterfront area has been added to the Port of Nantong, China. Located from the mouth of the Yangtze River to the north branch of Chongming, Qihai includes 11 productive berths that will handle 2.8M tonnes of cargo a year. There are plans for Qihai to develop into a multi-functional port.

### PILOTS AHOY!

Brazil's transport ministry is to increase the number of pilots operating in the country's waters from 400 to 517 in a bid to drive down charges and increase efficiency at commercial ports. Santos port has suffered most from shortages.



## Port updates

### DEEP DEVELOPMENT

Jasper Ocean Terminal (JPO) has chosen engineering firm Moffat & Nichol to oversee the development of a Savannah River deepwater container port in South Carolina, USA.

"The selection of a program manager by the Joint Project Office's Board of Directors is an important step toward meeting future shipping needs for this region," Jim Balloun, JPO chairman, said in a statement, adding that Moffat & Nichol will develop feasibility studies, quantify capital needs and perform overall management for the facility. "We are excited about moving forward on a project that will help build the long-term viability of international trade in our region, create jobs and promote new economic opportunities."

### ICTSI INVESTS

Port operator ICTSI (International Container Terminal Services, Inc) has invested \$1M in energy-saving technology for use in its new cargo handling equipment. The fuel and emission-saving technology that is supplied by US-based Vycon will be used on the 12 rubber-tyred gantry cranes for use at the Manila International Container Terminal (MICT). ICTSI claims the energy storage systems will help MICT realise substantial savings in diesel fuel consumption and costs in operating cranes. The system optimises the crane's diesel generator operation by storing energy during the crane's lowering cycles and then quickly releasing regenerated energy for the crane's lift cycle, ICTSI said.

### PROJECT PARK

Cates Landing Riverport (CLR) is now being built on an oxbow lake of the Mississippi River near Tiptonville, USA, with a 1,000-acre industrial park forming part of the project. Jimmy Williamson, chairman of Northwest Tennessee Regional Port Authority that is building the facility, said Coffey Construction had just completed building special areas to receive dredged material at a cost of \$1.4M. Once the harbor's dredged – to a depth of 11ft – work will begin on the facility.



Photo: SCT

Two new container terminals should transform Veracruz

## Interconnection at Veracruz

Veracruz, Mexico's oldest port, is to undergo improvements that will transform it into a state-of-the-art facility with integrated rail network links. The various infrastructure upgrades being planned are intended to make the Gulf of Mexico port a better choice for carriers and shippers alike.

Bids to create two new container terminals are expected to be sought early next year and the project itself should be operational by 2010. The government is committed to covering more than half the projected \$785M cost, with developers funding the balance.

Largely privatised in 1996, Veracruz handled 730,000 teu in 2007, plus 18M tonnes of general cargo (mainly grain) and 650,000 cars and trucks.

Alejandro Chacón, general co-ordinator of ports and merchant marine at the Communications and Transportation Ministry in

Mexico, told *P&H* that, in addition to the two new box terminals, the port's bulk and ro-ro facilities are to be upgraded, which should increase the port's cargo handling capacity by 84%.

The proposed developments face a challenge in the form of environmental concerns about a reef that runs perpendicular to the port's channel. Chacón explained that over the years much of the reef has been killed by pollution. He said his agency is working with the federal environmental secretariat to create new reefs further from pollution sources.

"We are developing a mitigation plan as we speak," he said. In fact, the pollution doesn't emit from the port, but from a local sewage treatment plant that has been malfunctioning for some time. Water and sewage handling is a municipal responsibility, but Chacón is working with local officials to repair the plant so its

problems do not hinder the port.

The most far-reaching developments may be those beyond the port gates. One project is the development of a commercial zone outside the port to house distribution centres and warehouses. Chacón reported that land excavation has already begun at the 300ha site.

That facility is located on a highway bypass constructed around the city centre to prevent congestion and speed cargo into and out of the port.

A new line has also been built to connect the port to Mexico's Chiapas Mayab railway system. The loop now carries some 70% of intermodal freight around the city, Chacón noted.

He added that the long-term plan is to link Mexico's railway system to the network of the Kansas City Southern Railroad, ultimately connecting Veracruz to the US hinterlands.

## Rail to the rescue in Sri Lanka

Sri Lanka has drafted a new transport policy with the aim of improving logistics and supply chain processes. The policy was unveiled by the National Transport Commission, and lays special emphasis on ensuring multi-modal access to all seaports, airports and dry ports. The government wants to encourage better planning of transport modes and location of warehouses. It will also assist private-sector

development of such locations through fiscal and non-fiscal incentives.

The policy targets increased use of rail transport of freight, especially moving cargo in and out of the island's ports through joint ventures and other private investments. It also aims to develop several rail logistics centres or inland container depots close to the Port of Colombo and the airport.





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**Jan De Nul**  
GROUP

## Port updates

### TWIC IN ACTION

TWIC (Transportation Worker Identification Credential) card enforcement in the US began on 15 October and the US Coast Guard reported that the system functioned well during the first week, with only 23 of 20,000 New England dock workers denied access to terminal facilities. It claims that during implementation it was business as usual. Ports in the northeast states were the first to begin enforcement in a staged scheme. The Great Lakes were due adopt the scheme on 31 October.

### SHIPS SHUT DOWN

California has firmed up its proposed orders to force reefers, container and passenger ships to shut down auxiliary engines in port and use shoreside power, starting from 2014. From that year, auxiliaries must be shut down for at least 50% of the time that ships are in port, with progressively stricter restrictions on engine use every three years until 2020 when the limit of 80% is reached, coupled with an 80% reduction in onboard power generation. Fleet operators have the option to reduce NOx and SOx emissions instead, beginning in 2010.

### ANTWERP'S HANDLING UP

The Port of Antwerp handled more than 144M tonnes of freight from January to September 2008. The port said in a statement that this represents growth of 7.2% compared with the first nine months of 2007.

### MAASVLAKTE 2 STARTS

Port of Rotterdam's Maasvlakte 2 development was officially started on September 1 with a sand spraying operation. Mayor Ivo Opstelten said this is, "an historic day for our main port. After 15 years of making plans, discussion and procedures, we are now making a start on this urgently needed port expansion". Hans Smits, Port of Rotterdam Authority CEO, commented: "Maasvlakte 2 is important for our economy and for our prosperity. But [it] also symbolises the vitality of Dutch logistics, industry and hydraulic engineering. These all come together in this project".



Photo: Port of Los Angeles

**TransPacific Terminal, LA (pictured) is to be extended by 800m**

## Green fund wins

A multi-million dollar first phase to expand the TransPacific terminal at Los Angeles has been approved by harbor commissioners.

An extra 800m of wharf length will be added, raising TransPacific's total to more than 2,000m. Work on the terminal will start in December and is expected to finish in 2010. The full project is expected to cost \$1.5Bn, but in return the terminal aims to increase container throughput by 70%. A green buffer zone will be set up, as well as facilities for onshore power supply.

The project has been delayed by several years because of environmental opposition, but finally gained approval in early October following inclusion of a \$50M fund for eco-related projects. David Freeman, head of the harbor commission, said: "At a time, when this nation has a collective case of the jitters about its economic ills, the fact we're able to approve \$150M worth of new construction is something we should be proud of."

## Los Angeles ED takes AAPA chair

Port of Los Angeles executive director and IAPH executive committee member, Geraldine Knatz, was formally inducted as the chair of the American Association of Port Authorities (AAPA) for 2008–2009. Dr Knatz accepted her new duties at a membership meeting in Anchorage on 25 September. The other 2008–2009 officers were also inducted as part of AAPA's 97th Annual Convention.

Also during the five-day convention (21–25 September), AAPA presented Port of New Orleans president and CEO Gary LaGrange with his Port Professional Manager certification.

"Geraldine Knatz, in charge of America's largest-volume container port, was elected chairman of the board through a unanimous vote of AAPA's board of directors, representing port officials throughout the western hemisphere," said AAPA president and CEO Kurt Nagle. "Dr Knatz has the experience, leadership skills, dedication and industry respect to advance our association's mission of connecting port communities with the global marketplace, and we look forward to her chairmanship for the coming year."



Photo: Will Watson

**Geraldine Knatz officially took up her post as AAPA's chair**

## Dioxin disposal

The go-ahead has been given to remove dioxin-contaminated sediments that are preventing the US Port of Olympia on Puget Sound from dredging two of its three berths to 40ft (12.2m). The port has been unable to dredge the sites because of high dioxin levels – the result of decades of industrial, municipal and naturally occurring pollution – making it difficult to attract larger ships to the terminal.

Approval to tackle the problem has been granted by the Washington State Department of Ecology as part of a programme to clean up contaminated sites in Puget Sound by 2020.

After a pilot study to determine the effectiveness of various dredging methods, the port will remove part of the sediment from the two shipping berths and transport it to an appropriate waste disposal site. Once the sediment has been recovered, the Department of Ecology will conduct monitoring to determine the impact of the work on sediment and water quality.



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## Dredging

### COLOMBO PROGRESS

Dredging of the harbor basin for a new terminal in Sri Lanka has begun. The state-run Sri Lanka Ports Authority (SLPA) will build and operate a container terminal in the new port being built next to Colombo.

Port development minister Dylan Perera said that bids will soon be invited for the new terminals in the expanded Colombo port.

SLPA, which currently runs two container terminals in Colombo, will build one of the three terminals in the new port, Perera said. Private investors will be invited to build and operate the other terminals. Other preparatory work is also being done to build the new breakwater.

### ORE PORT FOR GUINEA

A deepwater port is planned for Forécariah, 100km southeast of the Guinean capital of Conakry. The facility will be built on an artificial island west of Matakang Island as part of Australian company Bellzone's \$4.5Bn project to exploit iron ore deposits at Kalia, in the north of the country.

The island is to be built from material dredged from a new shipping channel that will allow 250,000dwt bulk ore carriers, box ships and tankers to access the new loading berth.

Other facilities planned are a lay-by berth, support vessel harbor, logistics berth and customs and immigration facilities. The scheme also envisages construction of a rail link from the mine to the island.

### HALF WAY IN DURBAN

The Durban project to widen the harbor entrance from 110m to 225m and increase outer channel depth from 12m to 19m is almost half way to being completed.

The northern breakwater is being replaced by one farther north, the southern breakwater will be raised and strengthened, and Durban's beach sand-pumping equipment relocated.

Some of the rock and rubble removed from the harbor can be used for breakwater construction, but about 10Mm<sup>3</sup> of sand will have to be deposited in a deepwater dump site. Completion is due by March 2010.



Photo: MOL

**MOL Enterprise hooks up to shoreside power**

## LNG as clean power source

Mitsui OSK Lines (MOL) has tested an LNG-fuelled onshore power supply (OPS) on container ship *MOL Enterprise* at the Port of Los Angeles. The work was carried out in collaboration with CleanAir Logix.

The shipping company said that it will use the results of this test to develop and provide OPS at the port, which should help to reduce local air pollution from berthed vessels.

CleanAir Logix used a system that was connected to the power cable for the bow thruster motor. Power was supplied from an onshore LNG-fuelled generator, substantially reducing emissions of pollutants such as NOx and SOx compared with running the vessel's own generators, which operate on heavy fuel oil. During the test, only two of the ship's four onboard generators were in use.

## Hole traps storm sand

Port Canaveral's new \$2M sediment trap passed its first major test during tropical storms Fay and Hanna, intercepting sand that could have blocked the port's shipping channel, which would have forced closure of the port.

Construction of the sediment trap was completed last year before the start of the hurricane season. It is the only such facility in the state specifically designed to catch sand to prevent shoaling impacts. The Canaveral Port Authority Board of Commissioners approved the work in the aftermath of the 2004 hurricane season, which saw the Canaveral channel twice shut down as a result of shoaling caused by hurricanes Frances and Jeanne.

"The sediment trap was a wise investment by the port commissioners," said Stan Payne, CEO of Port Canaveral. "Along with

the backup generators now operational in all port facilities, we have added an invaluable layer of protection for the continuation of our cruise and cargo operations during the annual storm season."

Some 44,000m<sup>3</sup> of material moved from tropical storm Fay was contained within the confinement of the sediment trap. It is said that the trap received nearly double the amount of sand from this event than would accumulate in a year in the absence of a major storm. Annually, it is estimated naturally to accumulate 23,000m<sup>3</sup>.

"We dug a big hole hoping sand would fall into the hole instead of our channel and that's exactly what happened," said Dr Kevin Bodge, who designed the sediment trap. "As a result, we were able to keep the channel open to commerce."

## Container solutions

Port of Gothenburg's container terminal has awarded a three-year contract to Cargotec's Kalmar business to supply the port with empty container handling capacity.

The port is buying the capacity it needs from Kalmar on a 'per-hour' basis.

That means the responsibility for ensuring the highest levels of machine availability will fall on Kalmar.

Svante Alveronn, general sales manager, Sweden, Kalmar Industries, said in a statement: "Kalmar has worked closely with the Port of Gothenburg for more than 40 years, which makes it easy for both of us to expand our co-operation to more sophisticated solutions."



## Fast-track for Montevideo

Uruguay's national port authority, Administración Nacional de Puertos (ANP), has speeded up development of the Port of Montevideo and is fast-tracking construction of a third large berth within the port.

Berth C will be a multi-purpose dock, 300m in length with 14m draught alongside. Next to the berth there will be 4ha of storage area. Associated dredging will have to be carried out to create an access channel. The bidding

process for the contract was under way as P&H went to press. Congestion is a fact of life at the port and the facility's completion date of 2011 should bring some relief. Other expansion plans are in the pipeline, such as a new 350m container berth for Terminal Cuenca de la Plata.

The port is growing fast, with box ship arrivals providing evidence of a 15% rise in throughput this year and similar expansion is forecast for next year.

## Reform law prompts changes

The port of Marseilles-Fos is to take on a new name and management structure under government reform of France's seven main ports.

Legislation changing the so-called 'autonomous' status of the ports came into effect on 10 October, with official publication of the terms of application. The Port Autonome de Marseille will now be known as Grand Port Maritime de Marseille (GPMM) and governed under a three-tier system of executive, supervisory and development boards.

The four-strong executive board, with a president to be designated by the state, will take prime responsibility for strategic planning, which in future will focus on infrastructure development. The first task is to define strategy over the next five years, including details of the transfer of cargo handling to the private sector as is required by the new law.

The other two boards will replace the current administrative council of 26 members. The supervisory line-up of 17 members will include five state appointees, three from GPMM, four local authority representatives and five from bodies such as the chamber of commerce. They will meet four times a year to review the executive's policy and budget proposals.

The development board is to have a consultative role with regard to strategy and tariffs. The 40 members – 12 each from port professionals, local authorities and development parties, plus four from port-based companies – will meet twice a year.

## Billions for Bayonne blues

Cost estimates for fixing the air draught problem for New York and New Jersey marine terminals by the Bayonne Bridge, USA, have doubled to an estimated \$2Bn.

Adm Richard Larrabee, commerce director of the Port Authority of New York and New Jersey, told delegates at the annual Port Industry Day gathering in October that the bridge remains the port's "number one issue" as expansion is planned. The span has an air draught of just 46m and is the single biggest impediment to the port's growth, said Don Hamm, president of the Ports

America-run Port Newark Container Terminal.

He said that his terminal and others throughout the port complex are deepening channels and improving infrastructure in anticipation of welcoming larger container vessels once the Panama Canal expansion is completed. But the bridge will impede larger box ships from passing beneath it – and it stands between the ocean and all but one of New York's terminals.

Some at the meeting suggested tearing the bridge down, given that there are already alternative routes for road traffic.

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- Day 2 What is Dredging? Dredging Equipment/ Survey Systems (includes a Site Visit)
- Day 3 Cost, Pricing and Contracts
- Day 4 Preparation of a Dredging Contract
- Day 5 Dredging Projects

The cost of the seminar will be € 2.950,-; this fee includes all tuition, seminar proceedings and workshops and a special participants dinner during the week but is exclusive of travel costs and accommodation. Assistance with finding accommodation can be given.

Representatives of port authorities, companies, and individuals, with an education level equivalent to at least a B.Sc. or comparable work experience, interested in attending are requested to pre-register.

For more information, please contact Mr. Frans-Herman Cammel at [info@iadc-dredging.com](mailto:info@iadc-dredging.com) or visit [www.iadc-dredging.com](http://www.iadc-dredging.com)

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## People

### VIP VISIT

Ihor Ostash, Ukraine's ambassador to Canada, visited the Port of Halifax recently to meet port officials. Ambassador Ostash met port president and CEO Karen Oldfield and vice-president business development and operations George Malec. Ambassador Ostash was given an overview of the Port of Halifax.

### QUEENSLAND SPLITS

Australia's Queensland port management is to be decentralised. Two corporations are to be set up to manage far north and major bulk ports. Cairns Port Authority will become Far North Ports Corp, while a new North Queensland Bulk Ports Corp will be based in Bowen. The state government said that the change will build export strength and provide regional capacity and leadership.



Photo: Port of Felixstowe

**At a glance ... Felixstowe monitors cargo moving in and out using an access control system**

## Felixstowe's smart security

Port of Felixstowe, UK, is now controlling access to its facilities using smart card technology and biometric handreaders from Ingersoll Rand Security Technologies. Felixstowe handles over 3M standard-sized containers each year and security is of

paramount importance, the port said in a statement.

Its owners, Hutchison Ports, needed to enhance security by monitoring movements in and out, without increasing cargo handling times and inconvenience for hauliers. RHIDES (Road Haulier

Identity System) is a biometric access control system and is said to be easy to use and can handle thousands of records. It is designed to be a deterrent to container theft and improves access controls required to meet the requirements of the ISPS Code.



**USA**  
Span change and modernisation of rail-mounted quay crane



**Cuba**  
Fully repaired QC after derailment and crane collision due to high winds



**Thailand**  
Land transport of quay crane to new berth



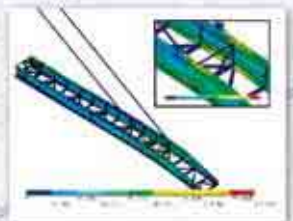
**Indonesia**  
Crane collapse due to vessel collision prior to full repair and return to service



**Dubai**  
Width modification and installation of position determination system to RTG



**Algeria**  
One of two quay cranes transported from the USA— over 10,000 km



**Taiwan**  
FEM analysis to determine stress points on boom extension



**Hong Kong**  
Position determination system and auto-steering for RTGs



**Egypt**  
Total refurbishment of quay crane



## Berths filling at London Gateway

The first three berths at the new Thames-side London Gateway port in the UK – amounting to 1.2km of quay – have been allocated. “The first phase of the project is fully booked, incorporating Berths 1, 2 and 3. We are in negotiations for the fourth berth,” a spokesman confirmed. London Gateway’s chief executive officer, Simon Moore, told *P&H* that commitment to berths “has given us a great deal of confidence in pushing forward with the project.”

Construction of the first phase was worth £400M. The first berth is due to open in 2011. The new port will eventually handle 3.5M teu. China Shipping Container Line is understood to have signed a memorandum of understanding with DP World to use 13,000 teu ships at the port.

**London Gateway’s Moore on the project site**



## Essential for trade

Work began in October on the long-awaited Cai Mep-Thi Vai port project in central Vietnam. The project’s completion in 2011 is being seen as vital to the country’s export and import trade, especially in easing port congestion.

Japan’s Bank of International Co-operation is providing a loan of \$428M. Repayment will be over

40 years at a nominal interest of 0.4% a year. JBIC official Takaaki Kawano said the project will cut transport cost and stimulate the local economy. Vietnam’s deputy prime minister, Hoang Trung Hai, explained that the project would consolidate several maritime developments and act as a springboard for transshipment activity.

## People

### REQUIAO REQUIEM

Eduardo Requiaio, president of APPA, the port authority for Paranaguá, stepped down from his position in September. Requiaio, appointed by his brother Roberto, governor of Paraná, has rarely been out of the headlines since he was appointed four years ago. Shippers, port operators, port workers and carriers alike have previously called for his removal to no avail.

### VYBORG GETS GUIDANCE

Oslo Marine Group (OMG) has appointed Port Evo’s James Sutcliffe to project manage its Vyborg Port re-development programme in northwest Russia. It is hoped that the site will become a logistics hub for the northern Baltic region, with container and ro-ro facilities augmented by direct rail links to St Petersburg and Moscow. The project is due for completion in 2010.



**Malta**  
Acquisition, transportation and installation of six RTGs



**Malaysia**  
Modification of quay crane with eight-meter height increase



**France**  
Repair of crane leg after vessel strike



**India**  
Crane outreach increased with 3-meter boom extension

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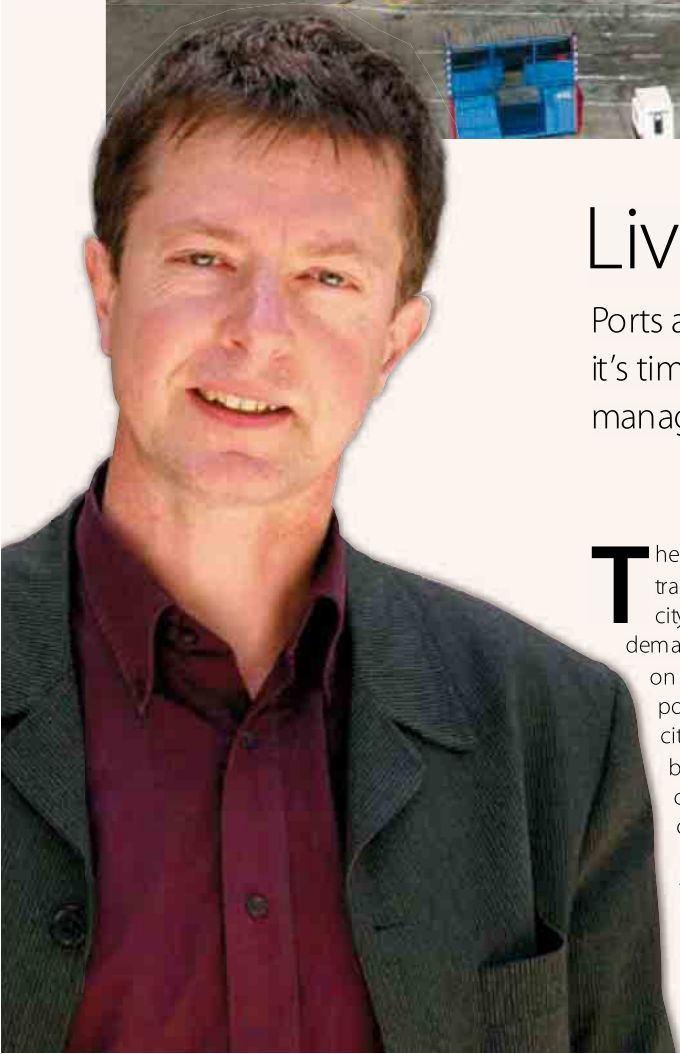
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## Living beside ports

Ports and people have existed side by side for generations, but it's time to review the relationship, says **Olivier Lemaire**, general manager of the International Association of Cities and Ports

**T**he ship, an essential tool in international trade, is central to any analysis of the city-port relationship. The operational demands of vessels have a direct bearing on the territorial organisation of the port city and the management of the city-port interface. Ships still have to be received in ports that are based in cities, and the environmental impacts of this need to be addressed.

Suitable sites for port development that public and private stakeholders can accept from a financial, social and

environmental perspective are not capable of infinite expansion, so there is an obvious need to optimise the land available. Port facilities are being squeezed between sensitive natural spaces – along coasts, estuaries and waterways – on the one hand and urban development on the other. Waterfronts are being renovated and sold off as desirable living spaces. And, as port-city interface sites become more urban, legislative and regulatory constraints – particularly in the form of environmental and sanitary restrictions – are increasing.

Negotiation, rather than conflict, is now the





Photos: AWP/IACP

### Residents of Valparaíso, Chile, have a bird's eye view of port operations

way to manage the issues of port and urban development. Developing the city alongside the port has become an ambition for local stakeholders, so as well as managing the separate and distinctive areas of city and port, each with its own geographical area and function, there is now a need to manage a common 'city-port community area' that sits between them.

If this aim is to be realised, stakeholders will have to find answers to some pressing questions. The need to reduce pollution from port activities is central and is dependent on a high level of understanding and management of port pollution in relation to the city.

It is not entirely correct to claim, as port stakeholders tend to do, that residents of port cities love ships but detest lorries. Certainly, many people do have an appreciation of the movements of vessels – perhaps even of lorries

## Ports in practice

Ports present many opportunities to implement new solutions to maximise economic competitiveness and lessen the impact of port activity on the urban environment. These impacts were discussed during an IACP conference in June 2008 that focused on worsening congestion on main and ring roads caused by rising numbers of vehicles carrying imported and exported goods.

Three European ports have adopted different approaches:

- In Leixões, Portugal, a motorway lane reserved for heavy goods vehicles allows port terminals to be accessed

avoiding built-up areas. This new port entrance is also equipped with a system that can track goods automatically

- In Hamburg, Germany, a motorised 170teu barge equipped with its own container crane will be placed in service to reduce terminal congestion. It is capable of handling containers between the various terminals independently of quayside gantries
- Savona-Valdo, Italy, is undergoing the experimental implementation of the Metrocargo system in. Freight units are automatically loaded on to trains, which then take the containers to the port terminals.

– which give life to the port landscape. It is these same inhabitants, however, who are voicing their objections to the pollution that arises from these activities.

The combination of the heavy fuel that is widely used for propulsion and the age and condition of the engines in many ships are responsible for a considerable amount of atmospheric pollution. Unfortunately, the fumes and gases that they so visibly throw out are placing the whole industry under a cloud.

The change of public mood towards pollution and the environment is so strong that a number of port cities are changing their image and reinventing themselves as tourist destinations. This generally involves renovation of the waterfront, providing facilities for the reception of cruise ships and improving the interface with the port.

Pollution connected with ships, accepted in the context of industrial development, is likely to be less and less tolerated by those who are involved in long-term projects to enhance the cityscape and improve the port's aesthetic appeal. In many cases, however, these plans are still long way from reality.

Conscious of these new urban expectations and anxious to avoid critical situations, ports are beginning to restrict access to their waters for the more visibly polluting vessels. Inspections are becoming more rigorous – and in this the local authorities are bolstered by new, more restrictive national and international regulations. There is no doubt that politicians and pressure groups are paying greater attention to reducing ships' emissions in port and are increasingly insisting on inspection of vessels by maritime and port authorities.

When a city embarks on an ambitious residential project that trumpets the attraction of its view over the maritime and port landscape, the scope for conflict between city authority and port operators greatly increases. Noise, vibration, night lighting, dust and fumes are inescapable facets of vessel and quayside

operations – and none of them is welcome in residential areas.

Here it is only fair to ask whether the urban authorities considered these issues at the start of the project. Did they hold discussions with the port authority at an early stage to try to identify and evaluate this pollution? Did they discuss the matter with shipping companies using the quays? In most cases, the response to these questions would be 'no'.

It is often only when a conflict arises that a solution is sought. Perhaps it would be better to avoid residential development in port interface areas, in favour other value-adding ventures such as promenades, places of culture and leisure, or activity zones. There is certainly no shortage of urban environments that are compatible with port activities.

Where quays have been developed to provide housing – whether old and renovated, or newly built – that adjoins or overlooks the modern working port, solutions are needed that will enable city and port to live together harmoniously. 'Dustless' terminals for bulk cargoes, directional lighting, anti-noise surfacing of terminals, reorganisation of working hours and tertiary 'screen' buildings can all help make the port a good neighbour.

It may be that some architects and urban planners are distanced from the realities of port life. If so, they may need to be reminded that the port is an essential link in the economic chain and a workplace that has strong constraints in terms of pollution and safety.

If it is necessary to bring the city closer to the port, the vision driving this development should be shared by all the stakeholders concerned. Reinvigorating the interfaces of city and port can enhance the value of the whole city-port community area, and cutting air pollution from vessels is vital for public health, but, against this, certain areas for port development are non-negotiable.

Build the city with the port, yes – but not anywhere and not any old how. **PH**



Photo: iStockphoto

## From the grass roots up

Integrated management training can be effective in developing port managers, explains **Shoven Mukherjee**, of Kolkata Port. He shares his 'model manual' concept with *P&H*

### Classroom work is only one element within the overall IMT programme

**T**he concept of integrated management training (IMT) was introduced on a small scale 25 years ago at the Port of Kolkata, India. In 1983, the port recruited young, talented graduates and postgraduates from all disciplines and integrated them into the various departmental activities of the port as management trainees. These individuals were put through a scheme that included both off-the-job and on-the-job field training and exposure to similar Indian ports and project work. Their progress was monitored through continuous evaluations.

Those that were involved in the scheme went on to be efficient port managers and made useful contributions to port development.

Ports across the globe have long sensed the need to rationalise the management training process. Their efforts led to the development of the quality management system of the International Organization for Standardization (see box), the certification of which has been obtained by almost all ports.

The basic aim of IMT is to impart total training

in appropriate areas of work for the continuous development of the manager concerned. This may be divided into two stages:

- Pre-induction – training new management trainees
- Post-induction – training those who have become managers throughout their careers.

For the pre-induction stage a comprehensive training manual should be prepared, detailing the training modules and modes, the timing and duration of training modules, places and phases of training and progress evaluation methods. The trainees should pass through all stages of the training successfully.

Similarly, a training manual should be compiled for the post-induction stage. It should be prepared to the same depth of information about ongoing training as the manual for the pre-inducted trainees, but with the addition of details about any incentives and penalties that apply. The manager should be required to pass through all stages of the training successfully throughout his/her entire job tenure with the sole purpose of continuous self development.





## A sea of opportunity

### Sohar Port project

The project involves the construction of quay walls and the execution of dredging activities at the industrial port and the fishery harbour of Sohar. A total of 23.6 million m<sup>3</sup> of sand are to be dredged. By the end of 2008, when the project is due for completion, the largest container, cargo and liquid carriers in the world will be able to call on the port.

Van Oord is a dredging and marine contracting company with a worldwide reputation for building tomorrow's infrastructure. We carry out projects around the world, offering solutions to our clients' marine engineering problems and managing the entire process from design to completion. Our work combines professional skill with experience in local environments and innovative solutions. Van Oord employs 4,500 highly-qualified professionals and has one of the world's largest state-of-the-art dredging fleets. The company arose from the merger between Ballast Nedam Dredging and Van Oord ACZ.



I underwent pre-induction management training at Kolkata Port in 1986. I have also been given the opportunity to undergo continuous self-development since 1990. I have been involved, from a teaching perspective, in various training programmes organised by the Indian Institute of Port Management, Kolkata. Through these programmes I get the opportunity to exchange ideas and thoughts with other managers of Kolkata Port as well as other ports in India, both in the public and the private sector.

In the light of my own experience I have developed a 'model manual' for both pre-induction and post-induction stages of port IMT.

*The Pre-induction Port IMT Manual* advises that the management trainees appointed each year should be given IMT for one complete year before being inducted – subject, of course, to the training being completed satisfactorily. It provides a schedule based on six phases.

For the first three months, they would undergo Port Orientation Training – Phase I through classroom sessions. They would also have continuous training in the various fields of port operations and management, including: traffic operations; marine operations; lock gate and drydock operations; cargo and container management; plant, equipment, machinery and installation (PEMI) management; estate management; port safety and security management; port personnel management; and an understanding of legal and labour matters. These tutorials should be carried out by expert port managers in relevant fields.

The following three months would include on-the-job field training, as part of Port Orientation Training – Phase II. It would be supplemented by further continuous coverage of the port's activities and areas.

The trainees would return to the classroom for the next three months to look at the various fields of business management, including: finance, marketing, service sector, operations, personnel management, information technology and computer-aided management, export-import and supply chain management. Again these classes should be taken by relevant experts.

Two further months would consist of project work and would incorporate visits to two or three similar ports within the country or overseas.

The final month would be devoted to project work on any port-related issue under the guidance of a senior port manager.

*The Post-induction Port IMT Manual* is designed to provide a continuous plan for learning throughout the career of the port manager. It suggests the following:

“Through these programmes I get the opportunity to exchange ideas with other managers”

(i) Every year, each junior-level port manager (defined according to their years of service or position) would undergo four training programmes in a related field of work. Each programme should take no longer than 10 days.

This would include a visit every two years to a similar port in the country for a maximum of seven days. Every five years, the manager would visit a similar port overseas for up to 14 days in order to update his knowledge and skills.

Those not directly involved in port operations should take an additional short programme on port safety and security.

(ii) At middle port management level (again, as defined by the port), once a year each individual would go through three programmes in his related field of work lasting no more than seven days each. Integral to this part of the training process would be an annual seven-day visit to a port in the same country. Every three years, the manager would visit a foreign port for a maximum of 14 days.

Again those not directly involved in operations would complete a programme in safety and security.

(iii) A similar programme would be followed at a senior level: an individual would undertake two programmes of three days each. Every six months they would visit a different port in the same country and a port overseas every two years.

(iv) Following on from my philosophy – that teaching is the best method of learning – each manager should be involved in training from a lecturing perspective. A junior-level manager should aim to carry out two programmes a year in his or her related fields of work, amounting to no more than 20 hours in total. A middle-level manager would again carry out two programmes lecturing for 15 hours in total, while a senior-level manager would be responsible for one programme a year, lasting no more than 10 hours.

Development of port managers is a key component in the development of individual ports. This scheme should offer the port and its staff:

- Complete career development and career progression schemes
- Continuous performance monitoring of port managers. Therefore selection of the 'right person' for the 'right job' at the 'right time' with the 'right remuneration' would be straightforward
- Motivation and recognition. **PH**

*Shoven Mukherjee is senior executive engineer (Mech) at Kolkata Port Trust*  
More info: [www.kolkataporttrust.gov.in](http://www.kolkataporttrust.gov.in)

## ISO quality management system

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Photo: Kongsberg Maritime

## Qualifying experience

Potential UK harbor masters may have to gain a mandatory qualification before being appointed. *P&H* correspondent **David Robinson** considers the reasoning behind it

**T**he UK government has called for a major review of the training and qualifications required for the harbor masters. Changes to maritime legislation are proposed that would require each harbor master to gain a mandatory qualification – at present, any qualification presented to support an application in only voluntary.

The new approach has been prompted by the drafting of the Marine Navigation Bill, which is intended to strengthen the existing Port Marine Safety Code. The bill has recently been out for consultation.

The government's move has caught the UK port community unawares, and there was little or no warning that a mandatory qualification was being considered. It has led to an intense round of negotiations involving the Department for Transport, the Maritime and Coastguard Agency (MCA), the UK Harbour Masters' Association (UKHMA), port employers and other interested parties.

These negotiations have been under way for some

time and were expected to be completed this month.

The parliamentary Transport Select Committee responded positively to the bill and commented in its report: "The Government's intention is to take a power to enable the Secretary of State to require harbour authorities to employ only qualified persons as harbour masters. However," it continued, "the Government says it would only make use of this power if the industry continues to fail to adopt the non-legislative standards set out in the Port Marine Safety Code."

The move stems from issues that are being experienced internationally as well. The expansion of the global ports industry to meet the growing demand and changing patterns of world trade has coincided with cutbacks in size of some traditional merchant marines. That, in turn, means there are fewer master mariners coming ashore – and it is from their ranks that harbor masters have customarily been recruited in the UK.

In other countries, recruitment follows a different





**Managing the vessel traffic system requires a master's level of understanding**

route. In Japan, for instance, the harbor master is appointed by the Japan Coast Guard from among its coastguard officers.

But European port executives and harbor masters to whom *P&H* spoke confirmed that, in their countries, it is usual practice for the role to be filled by ships' masters, because they are considered to be the only people with sufficient experience in navigation, for example, to fulfil the role adequately.

The shortage of master mariner candidates is a problem being experienced by several countries, including some in Europe, but only the UK is known to be addressing the matter at present. Other countries are watching what is happening in the UK to see whether it might provide a model that could be adapted to suit their needs.

According to Peter Moth, secretary for the UKHMA, it is an issue that has been neglected for some time. Harbor master qualifications are not covered in the IMO's Standards for Training, Certification and Watchkeeping (STCW), which regulate the training of seafarers, nor in any other international regulations.

Whether recruited from the coastguard or merchant navy, "Harbor masters," Moth told *P&H*, "tended to be qualified by seagoing qualifications." It has been left to the discretion of the port as to who to recruit, he added, and ports have "erred on the side of safety as there is no better qualification than a master's ticket".

Defining the role of the harbor master is difficult, because the skill-set needed differs from one port to the next.

For example, Port A may be totally commercial, Port B may deal mostly with yachts, while Port C could be a mix of the two. In the UK, a 'national occupation standard' was created, which deals with the core elements of the position – "It is a model that is easily transportable as being the basis for future thought," Moth told *P&H*.

From a practical standpoint, a new qualifications system would need to address the different categories of staffing. First, there are those who are already fulfilling the role of harbor master, whose existing qualifications and experience give them so-called 'grandfather rights'. Next are those who are in related positions but plan to progress to a harbor master post when an opportunity arises. And then there are people looking to enter the port industry with the intention of gaining harbor master status.

The UK legislation will take into account the influence port size has on the level of skills needed. The same Transport Select Committee report commented: "It would be absurd, for example, to argue that the harbour master of a small harbour such as Chichester requires the same skills that would be necessary to manage a large port such as Felixstowe or Liverpool. But this does not preclude the establishment of a national set of essential competencies."

So where would a candidate go to receive the voluntary training that the UK government wants its harbor masters to have?

And would such a course be up to the standard of a mandatory qualification, if and when it is imposed?

Various training courses are available in the UK, some of which cater for the international market as well. Since 1993, the Nautical Institute has provided a distance learning course that allows candidates to work at their own pace towards achieving the diploma. Topics covered include management, accident investigation, planning communications and safety, all of which are relevant to the harbor master's role. The course is linked with the institute's book *The Work of the Harbour Master*.

Peter Aylott, the Nautical Institute's director of professional development, told *P&H*: "At present the course is not accredited by any relevant body. We are hoping to achieve that in 2009 and we are currently pursuing this."

Lloyd's Maritime Academy offers an international diploma accredited by the National Sea Training School at North West Kent College, a UK maritime training institution. As well as being accepted internationally, the course meets UKHMA's continuing

“ [Ports] erred on the side of safety as there is no better qualification than a master's ticket ”

professional development criteria and is supported by organisations that include the International Harbour Masters' Association and IAPH.

A third provider, IDG Maritime, started its course as a joint venture with UK port operator ABP. The original aim was to ensure a sufficient supply of people able to fill harbor master roles within the ABP group. Since then, the remit of the training has broadened and today it is operated as a three-day residential course that includes input from the National Sea Training School. IDG's course is endorsed both by the MCA and the UK Department for Transport.

If the UK parliament approves the Marine Navigation Bill and tomorrow's harbor masters are required to prove their worth by way of a formal qualification it is highly likely that courses will quickly spring up to meet demand.

In other areas of the shipping industry – notably, bridging the skills gap to man the expanding LNG fleet – training has been hailed as the panacea for all manning concerns. By contrast, the traditional path to a harbor master's position has involved a long, steady climb, accumulating the necessary navigation and maritime skills over many years.

Experience has shown that training can never be a substitute for experience. That is why, regardless of the outcome of the mandatory qualification proposal, nothing should be done that undermines the need for harbor masters to have first-class practical experience and understanding of the sea. **PH**



# Reconsidering sediment

A revised EU directive on dredged sediment could save European ports time and money when planning dredging projects

**T**he majority of sediment dredged during port maintenance work is clean and poses no danger to the environment. Indeed, it has a variety of beneficial uses, including land reclamation and construction. Despite this, EU regulations under the Waste Framework Directive (WFD), which defined clean dredged material as “waste”, hindered attempts to put it to good use. As this is written, the WFD is being revised and the hope is that clean material will no longer be considered a waste product.

Such a change would be very positive for European ports as it will allow operations to continue without the new measures leading to increased costs and administrative efforts.

Among the groups that have opposed the EU’s “waste” definition is the European Sea Ports Organisation (ESPO), which has been campaigning for a change to the regulation. In April 2007 ESPO declared: “European seaports believe that the current definition of waste in the Waste Framework Directive creates a completely wrong image of sediment, which is a natural resource material. Instead of regarding this as waste, it should be valued as an essential element in maintaining the

quality of water bodies. Sediment should preferably stay in its natural environment where it can play its role as regards the ecological and hydro-morphological status of the water body.”

Dredged material is considered to be waste because it is something that is discarded, even though it is a natural resource material, explained Erik Mink, consultant to the European Dredging Association (EuDA). “The root of the problem is that the EU definition of waste is very wide-ranging and not written to deal with natural materials. This has led many member states to consider dredged material as indeed waste and require a complex dredging licence approval process,” he said.

Current regulations require proposed developments to be given a ‘waste management exemption’. One project near the UK’s Port of Fleetwood was nearly brought to a standstill until the relevant documentation was obtained. Westminster Dredging’s project manager, Trish Martinson, commented: “In the end we got the exemption quite easily, but we were amazed that we did – it is not an easy thing to get.” And yet according to the company, using the dredged





**Not all dredged material is waste... sediment from Port of Oakland is being reused at Hamilton Wetlands**

material was far more environment-friendly than the alternative – bringing in 20,000 truck loads of material.

Dredged material can be put to a variety of uses. A project on the west coast of the US is using material dredged from Port of Oakland to re-create wetlands. In Europe, the Flemish Authorities are also considering the possibility of dewatering dredged sediment and compressing it into 'cakes' that can then be used for landfill and landscaping (see page 24).

Much clean dredged sediment is disposed of at sea under the rules of the international 1972 London and Oslo Conventions and the 1974 Paris Convention (LC/OSPAR) and most countries have applied the EU rules only to inland dredging. Others, though, have adopted the EU regulations for all dredging work, causing some projects to come to a halt, according to Mink. "We can only hope that this will change," he added.

Since the 1980s, IAPH has, in collaboration with IMO, carried out surveys on dredging activity at ports across the globe, establishing a well-balanced approach to implementing these conventions.

A distinction must be made between clean and contaminated dredged material. The latter is extracted and disposed of under strict environmental conditions and European ports have developed a variety of methods for dealing with it. Rotterdam, for example, dredges around 20M m<sup>3</sup> of sediment every year; of this, over 90% is clean and can therefore be disposed of at sea. The contaminated material that remains is stored in a large disposal site called the Slufter – and research continues into methods of treatment, that would allow even that material to be used in construction projects.

The US tends to favour confined aquatic disposal, in which a hole is dug, contaminated sediment deposited and uncontaminated sediment placed on top of it. The clean material therefore acts as a barrier between the contaminated waste and the environment.

Whatever method is chosen to deal with contaminated material, it is certain to be expensive: "It roughly increases the cost of dredging by an order of magnitude," Mink commented.

Some member states have argued that the EU legislation does not apply, since marine dredging is governed by LC/OSPAR, which preceded EU law. "There is thus confusion about what law applies and about the territorial limits of these two legal regimes," said Mink. "Under the London Convention, dredged material is not seen as 'waste', but as 'other material' that can be disposed of at sea, provided certain contaminant levels are respected.

"The new EU Waste Directive would bring EU legislation in line with these international conventions. This will hopefully lead to easing permitting requirements in several EU member states." Progress towards changing the directive is moving forward. In June, a workable compromise was found and the European Parliament and European Council agreed on the revised text to be adopted.

Before the future directive is rubber-stamped, there are some details to sort out, ESPO's secretary general, Patrick Verhoeven, told *P&H*.

"We asked our members to signal any problems they

## EU environmentalists

The OSPAR Commission's aim is to protect the marine environment of the northeast Atlantic. It is made up of 15 member governments and EU Commission representatives and sets up internationally agreed goals.

It does this through the OSPAR Convention [Convention for the Protection of the Marine Environment of the North-East Atlantic] and combines and updates the Oslo Convention on waste at sea and the Paris Convention on land-based sources of marine pollution.

encounter in discussions with national governments so that, eventually, we could take action in this field," he commented. "It's still early days, however, since the directives have not yet been formally approved by council, though this should happen later this month [October], and the process of implementation has not started yet." When it does, member states will have two years in which to implement the directive.

The qualification in the new Waste Directive for 'waste' is said to be "hazardous properties". In practice, this means that the dredged material should not display eco-toxic properties.

According to Mink, EuDA will suggest that the definition should stipulate that contaminants cannot enter the food chain in such concentrations that they could constitute a threat to human health. This level of contamination is very rare and therefore sets the bar quite high: "Personally, I'm only aware of one or two situations where this may have been the case," Mink added. "An example is the clean-up of the petroleum harbor in the Port of Amsterdam, where the hydrocarbon levels (PAHs) in the sediment were excessive." Individual member states are likely to set their own specifications concerning this, but, as ESPO points out in its statement, "It still remains to be seen, however, in which way member states will transpose the text into their national legislation. We would like to strongly encourage you to follow up on this issue when it is treated in your national legislative bodies." **PH**

**ESPO's Patrick Verhoeven wants revisions to the Waste Framework Directive**





Illustrations: SeReAnt

## The sediment space-saver

Dredged material can be dumped or stored for later use, but finding room for it can be difficult. **P&H** discovers how the Port of Antwerp's space-efficient solution is designed to make the most of its sediment

### AMORAS will fit in neatly alongside the existing port infrastructure

**M**aintaining and guaranteeing sufficient draught for ships is essential for Belgian port's future prosperity. But the port authority is running out of deposit areas for the 600,000 tonnes of sediment and other materials that are dredged each year, so it has been considering other options.

On 22 July the Flemish Authorities and contractor SeReAnt – a public-private partnership – implemented Antwerpse Mechanische Ontwatering, Recyclage en Applicatie van Slib (AMORAS – Antwerp Mechanical Dewatering, Recycling and Application of Silt). This system is designed to give the Port of Antwerp (PoA) a permanent solution for the recycling and storage of dredged sediment. Work on the project officially began on 1 October.

Joris Dockx, a project engineer at the Flemish Government Administration of Mobility and Public Works, Maritime Access Division, told *P&H* that if they were deposited in their raw, uncompressed state, the dredged materials would cover 120 hectares of land – and the Port of Antwerp just does not have the space

available to store dredged material on this scale.

For the past five years, PoA has disposed of dredged sediment in confined disposal facilities known as underwater cells. These comprise holes or pits dredged in the seabed, into which the dredged material is deposited before being covered with clean material. The displaced clean material (sand) is then disposed of elsewhere in the port. This procedure is both costly and unsustainable, however, so PoA, in association with the Flemish authorities, investigated other options.

A strong contender was lagooning. In this process, dredged sediment is deposited into a lagoon-style 'field' from which the water is allowed to evaporate away. The drawback is that the process would require an estimated 120ha of land per year. As Dockx pointed out: "This poses quite a problem in densely populated and industrialised areas, where land is needed for new industrial activities and expansion of residential areas."

By contrast, mechanical dewatering of the material would occupy only 20ha in the port – and it is a slightly cheaper option as well. Dewatering saves space





1



2



3



4



5



7

**Dredged material passes from the underwater cell (1) to deposit (7) – see box opposite**

because the sediment is compacted into ‘filter cakes’ using a seven-stage process (see box).

The process’s impact on the environment was also a key consideration. “The risks we take with mechanical dewatering are limited, because the entire process will take place in a closed environment,” Dockx explained. Conditioners such as lime, gypsum and cement are added to the dried, dredged sediment, to prevent the cakes from decomposing and protecting the environment from any harmful substances that may be present.

A SeReAnt spokesman emphasised: “In terms of sustainability, AMORAS meets all contemporary ecological demands, pursuing maximum energy efficiency during every phase of the process.” All of the dredged sediment from Port of Antwerp will therefore go through the AMORAS process.

Dockx explained that the port has permission to create a hill from the resulting cakes, which could reach 50m in height over the next 25 years or so. The Flemish Authorities are already researching practical uses for this potentially valuable resource.

“After this first step, of course a next step must follow, namely a useful application of the dewatered filter cakes,” said Dockx. “Managing and permitting authorities, universities, engineering companies and contractors should join hands in order to work out useful reuse applications. Much progress has already been made with respect to reuse.”

The Netherlands – the country in which the Port of Antwerp’s access channel begins – has a long history of finding ingenious solutions for land reclamation. According to Dockx, the Flemish Authorities intend to draw on experience gleaned from landscape construction in the low-lying land around the deltas of the rivers Scheldt, Rhine and Meuse, which includes new processing technologies and reuse of consolidated material such as soil or building material.

Options that do not require the sediment cakes to be processed further are particularly desirable, from both the environmental and the financial point of view. Landscape restoration is one example, as the cakes

## How AMORAS works

- 1 *Underwater cell* – clean maintenance-dredged material from the harbor is temporarily stored in a 150,000m<sup>3</sup> underwater cell before being pumped ashore for treatment. Heavily contaminated material is pumped directly ashore.
- 2 *Sand separation* – once ashore, the material passes through a sieving installation for removal of all the coarse elements.
- 3 *Discharge line* – the material is pumped through a discharge pipeline to a treatment plant to be deposited into four...
- 4 *Consolidation ponds* – each with a capacity of 120,000m<sup>3</sup>. Less-contaminated material is deposited in three consolidation ponds, while heavily contaminated material goes to the fourth.
- 5 *Dewatering plant and filter presses* – the material is dewatered and the residue formed into filter cakes.
- 6 *Water purification plant* – filter process and other effluent water are gathered in a wastewater pond and then pumped away to be purified.
- 7 *Deposit* – the filter cakes are deposited in a controlled manner.

could be used to fill former extraction pits – following which, Dockx noted, “The restored landscape can be used for further port development.”

Another potential use is landscape construction. The port authority and the maritime business world of Antwerp recognise that, for further spatial development to be successful, the ecological qualities of a landscape need to be considered. In particular, problems can arise where adjacent environments are ecologically incompatible. Consolidated dredged material could be used to create buffer zones between them – as Dockx explained. “They perform a buffer function between incompatible destination types such as industrial area versus agriculture, nature protection and/or residential area,” he said.

Dredging is a fact of life for the Port of Antwerp and so is the need to do something with the sediment removed from the seabed. By turning it into environment-friendly filter cakes through dewatering, the port will be able to supply valuable land reclamation materials to the surrounding hinterland for years to come. **PH**



Photos: PMAESA

## Training to keep up

Lack of systematic personnel training is preventing some ports from embracing technological changes. **Jerome Ntibarekerwa** gives an eastern and southern African view

**Jerome Ntibarekerwa believes it is important for a port to invest in its own personnel**

**T**he efficiency of ports depends to a large extent on the quality of the workforce, and the wealth of a port lies in its workers. Training port personnel is a powerful means of creating human resources and furnishes workers with the knowledge they need in order to perform their duties efficiently.

There is an urgent need to upgrade the skills of port workers at all levels in developing countries, and especially on the African continent. Ports have to strengthen their training capability and focus greater attention on the potential benefits of directing more resources to manpower development.

The port industry has been slow to respond to the skills needs of port workers and to provide relevant and effective training schemes during this recent period of rapid technological change. Without urgent assistance in upgrading port workers' skills, the operating problems apparent in the ports of developing

countries are certain to persist to the detriment of their economic development.

The changing economy and globalisation of trade has led to most major ports in the sub-region undergoing restructuring and initiating some form of labour reform, with a view to becoming more market- and profit-oriented and less dependent on state financial assistance. These days, ports are expected to be more responsive to rapidly changing environments, focusing on outputs rather than inputs, and to be flexible in meeting customers' requirements.

The full social impact of port restructuring, and of the labour reform that accompanies this process, has yet to be seen. Most of the sub-region's ports clearly have more than enough employees – Port Management Association of Eastern and Southern Africa (PMAESA) members alone employ more than 30,000. However, many of the staff either lack the skills required for the job or are hampered by outdated skills.

The ageing population is another problem that is confronting the sub-region's major ports, whose older workers often lack the basic academic skills that ought to be a pre-requisite to relevant vocational training. Their younger port workers may have a better educational background, but in many cases have not







**Port employees undergoing training on a new automated cargo clearing system**

received any training in modern, advanced cargo handling methods.

Although it is the individual countries themselves that have the primary responsibility for training, PMAESA serves as a liaison between ports and national and sub-regional institutes so that optimal use can be made of the training that is available. Where in-house facilities are lacking, training may be able to be set up to meet a port's specific requirements.

Some of the ports covered by the association have neither a training centre nor a systematic approach to identifying training needs and fulfilling them. Member states are encouraged to establish at least basic training facilities and organise training systematically, so that as much training as possible can be carried out locally.

The training of trainers, especially developing port managers or supervisors as part-time instructors, is also essential. Incentives, particularly in the form of better pay, should be implemented to attract potential trainers as instructors.

Most ports authorities in PMAESA lack sound and realistic human resource policies and strategies, yet such plans are essential and urgently needed. The authorities should determine the job description of each post, minimum entry requirements in terms of training, and the type of training appropriate for each role. Port personnel should then, of course, receive the training identified in the plan.

A rewards or certification system should be introduced as an incentive, so that only qualified port staff are eligible for future promotions or better wages. Training should therefore become compulsory, especially for newcomers seeking to make a career in the ports sector.

Some public-sector ports in Africa are still largely run according to outmoded socio-economic regimes and technology. As a result, the region's trade facilitation is hampered by operational bottlenecks and inadequate inland transport infrastructure.

Like any other industry, the ports sector has to face the challenges posed by rapidly changing technology. Individual ports need to cope with the industrial evolution of containerisation, large post-Panamax ships, state-of-the-art handling equipment and new communication technologies. They all involve heavy investment in both equipment and, most importantly, human resources. Training is critical to every aspect of life and every change demands new skills development.

Innovation in information technology has transformed communications infrastructure and business information flow, resulting in the emergence of automated, global, paperless and real-time network systems.

Once such systems have been implemented in ports in the industrialised world, they become the standard, leaving ports in developing countries with no option but to install the technology packages quickly – perhaps even before they can give their staff the training they need to manage the new technology. Ports in these countries face investment constraints in both equipment and manpower development.

With this in mind, certain ports have computerised

## PMAESA's training plans

The organisation aims to:

- Set up an appropriate programme that will contribute to improve human resources management. This will include establishing effective and systematic port worker training schemes and networking designed to improve cargo handling performance and equipment maintenance, working conditions and practices, safety and the status and welfare
- Establish port worker training schemes
- Make governments and port authorities of PMAESA member states aware of the social impact of restructuring ports and labour reform
- Create networking opportunities between port authorities and training centres
- Identify requirements for equipment and facilities that will enable participating ports and training centres to interconnect via internet or email services
- Prepare a database of port experts available in the region and procedures to interchange and update centralised information through the PMAESA secretariat.

their operations, but the concept of the 'paperless port' has still not fully evolved in the sub-region.

The move towards globalisation requires full knowledge-sharing and ownership of technology and logically the human resources should be in place before new technological packages are implemented.

If there is one development that has overwhelmingly reshaped the shipping industry in recent decades, it is containerisation and container shipping technology.

The containerisation revolution has had far-reaching effects on port operations systems and traffic flow around the world. Global maritime trade is dominated by those large efficient container terminals that are able to meet tight schedules and low turnaround times, servicing mega-vessels of 12,000+ teu and 110,000gt. There is no sign yet that the expansion of container traffic is slowing down. Keeping up with these changes requires constant manpower development.

In African ports, training is fundamental to keep up with these trends. They need support from international development partners on technology, environmental issues and governance mechanisms.

In particular, ports in the region should establish and create a fully equipped maritime college of technology that will give a new generation of port personnel the skills they need.

African ports and their development partners need to collaborate to build a long-term human resources pool that will cope with the emerging challenges posed by rapid technological changes in maritime and port activities. This training should also involve localising and gaining ownership of training and programmes offered in African countries.

Other international organisations that aim to champion global integration should provide support to developing countries to enable them to achieve global integration through ports. **PH**

*Jerome Ntibarekerwa is secretary general of the Port Management Association of Eastern and Southern Africa (PMAESA)*  
More info: [www.pmaesa.org](http://www.pmaesa.org)



Photo: Captain Peter Newton

## Training for today's port

Increasing trade and a reducing labour pool could eventually take its strain on ports. Three university professors suggest ongoing personnel development to train and retain your staff

**Ports are not totally automated yet. A considerable labour force is still required**

**W**orld seaborne transport has greatly intensified over the past few years, substantially increasing port throughput. This traffic increase cannot be compensated for simply by employing technology. Implicit technological changes, expansion of port facilities and continuous integration of ports as seawater interfaces in the logistics chain, also impact on labour requirements. Innovative and relevant education and training of port personnel at all levels is required.

The revolution in cargo handling has tremendous human resource implications. While containerisation led to a reduction in the number of dockers needed to handle each tonne of cargo, the vast increase in cargo, rise in productivity and massive scale of today's hub ports means there is still a need for thousands of well-trained employees on the waterfront.

An anticipated shortage of labour is one of the

greatest challenges currently facing the shipping industry, and ports are responding by looking at new ways of recruiting and retaining personnel.

HHLA in the Port of Hamburg employs more than 4,500 staff and needs to recruit more than 100 new trainees each year. Automation is today used as much as possible during in-service training programmes for gantry crane drivers. But automation cannot offset the movement of ships during loading, so gantry cranes still have to be manually operated. Many ports now have their own crane simulator, which allows trainees to develop their skills on different ship types and sizes as well as in different weather conditions. Hutchison Ports, for example, has a simulator in Hong Kong, which it uses to part-train staff from its various terminals, such as Felixstowe and Freeport.

Typical gantry crane training takes 25 weeks – eight weeks on a simulator and 17 weeks on a real crane,



the latter always with an experienced operator in attendance. Some ports offer trainees the chance to experience a wide range of roles including logistics, IT, crane operations and engineering. CMA-CGM, for example, has its own university at its Marseilles headquarters. Mærsk requires all its trainees to take its MISE (Mærsk Integrated Shipping Education) course in Copenhagen. These days, entrants for such courses are likely to be graduates who can speak at least two languages (one of which is usually English).

Any training offered should incorporate horizontal career move opportunities and life-long learning. Modules covering a range of sectors within the port – terminal operations, cargo and commodities, ship planning, ship types, for example – may be necessary, along with on-the-job training. Many may need to improve their competence in the English language.

The best approach, therefore, involves a coming together of learning and working to give the employee the right skills, and this so-called 'learning by doing' will help the trainee get a better grasp of problems.

It is increasingly difficult to recruit professionals with the right experience and training for pilot and VTS officer positions. In particular, port operators and service companies are struggling to find potential employees with a master's certificate (see page 20).

For both pilots and VTS operators seagoing experience is generally considered vital. An effective VTS operator should have a 'captain's view', to undertake the job. This level of awareness is even more pertinent today as the size of vessels increases.

In Norway the number of applications for pilot jobs has fallen by half since 2004. In an effort to reverse the trend, the Norwegian Coastal Administration has sought to improve conditions of employment, with incentives including free housing, free travel for journeys home and family visits to the employee's working location. There are also efforts to make jobs more interesting by allowing employees to attend industry conferences and providing local education. Success in recruiting and retaining staff increasingly depends on making employment more family-focused. The added costs of attracting the best candidates and retaining key staff are a price worth paying – particularly when set against the substantial consequences of shipping accidents.

Historically, ports were either departments of

city authorities or part of national administrations, which meant that port managers and their staff were effectively civil servants. Today, many of the world's major seaports are run as private or corporatised entities, so managerial focus has shifted to a commercial perspective.

Port managers now need skills that embrace both general and service operations management. Not only this, but in today's highly competitive environment, it is crucial for port managers to deal with customers' expectations and related service quality factors. Customers in this context are not just shipping lines but also global shippers and logistics firms.

Young managers at ports and terminals increasingly have a business background, often from universities offering specialised programmes in port management. Some companies have implemented special personnel development programmes, such as the Port Executive Programme (PEP) of Hutchison Port Holdings, which is based on a cross-functional and cross-cultural perspective with a special focus on leadership. Some port executives undertake a part-time degree-level course in maritime transport and logistics at universities such as Rotterdam, Copenhagen and Edinburgh.

The maritime industry's approach to education has changed. In the past, employees started at sea and then continued their careers in ports. Today, a high level of technical and strategic knowledge is expected, so employees have a growing need for learning concepts that take into account the natural working life-cycle in the maritime industry.

The industry also has to face up to the dwindling number of seafarers – a crisis that will directly affect ports. It is time to focus on integrated programmes and education with a continuous professional development approach that facilitates high mobility between sea and port labour. Any education offered should seek create a mobile labour force supported by international recognition and accreditation. **PH**

*Dr Gordon Wilmsmeier and Professor Alfred Baird of Napier University Transport Research Institute, Edinburgh, and Professor Thomas Pawlik of Kiel University of Applied Sciences are all partners in the Northern Maritime University project*

*More info: <http://nsr.nm-uni.eu>*

**Academic view ...  
left to right:  
Dr Wilmsmeier,  
Prof Baird and  
Prof Pawlik**





Photo: Captain Peter Newton

# Creating clear channels of communications

Confusing exchanges between ships and terminals can be avoided.

**Captain Thomas Hudson** talks through the elements of Seaspeak

**The Seaspeak format should help improve spoken communications between shore and ship's personnel**

For several years I observed the ship/shore interface from the viewpoint of a mariner attempting to improve cargo transfers and reduce demurrage expenses. Safety was the primary concern, of course, but it became clear that effective communication improved the quality and efficiency of the operations.

Over time, I noted a number of misunderstandings and incidents at US terminals where inappropriate communications had been a contributory factor. In one instance a terminal requested a vessel to "skinny back the pump". The ship's officer asked me for an explanation of the term, but I had none. Perhaps the dockman wanted the ship to slow down the discharge, but it really was not clear. On other occasions, dock workers used jargon from citizens' band (CB) radio, such as "10-4" and "10-20" – made popular through US television series but unsuitable for radio exchanges to ships or even within the terminal environment.

Tanker officers are expected to know basic English as part of their certificate requirements, although this may be limited to a few thousand standard words. We generally see ships where the chief mate has a good command of English, but the other watchkeeping officers may be less skilled.

We need to remember that there may be no English requirement for unlicensed crew members (regular deckhands). If there are different nationalities aboard, they may understand English because it is often the only shared language.

If some of the officers are not as proficient in English as they should be, this is generally caused by lack of practice. Often they can understand the written language but not the spoken word. Nevertheless, it is essential that we can communicate by radio between the ship and shore. Careful, distinct pronunciation will help. A very brief pause after each word and a slightly longer pause at the end of each phrase will make it



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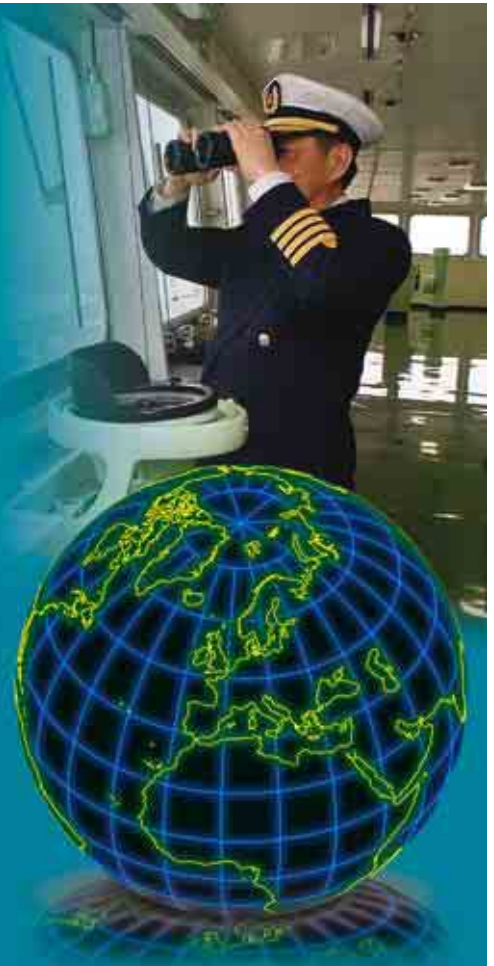
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Main Engine : 2 x 2206 kW
Speed : 12 knots
Complement : 25



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easier for the other person to understand. The short pause allows the listener to regroup his thoughts.

The IMO Seaspeak method was developed to enhance ship-to-ship communication. The procedures (see box) can also be adopted by terminals and terminal operators.

A standard radio communication begins with a transmission that identifies both the called station and the caller. An example might be as follows: "Tanker – Neverspill – this is – Oil Dock 4".

This starts the communications exchange and clearly indicates that the ship is to reply. The station being called is identified first (this alerts the recipient that a call is being made), and then the calling station identifies itself. The short pause between words allows the dockman to pronounce each word carefully and also allows the tanker officer to gather his thoughts. Each word should be distinct.

The remainder of the exchange should make use of standard phrases that ships' officers will understand. More importantly, they expect to hear such phrases and that expectation enhances understanding. Using them will improve communication considerably. If asked to repeat a phrase – "Say again" being the request – it is best to use the same words in the same order.

The standard IMO format uses a 'message marker' as the first word of the transmission. The message itself is structured as a three-part exchange: message – reply – acknowledgment ('message check'). A typical exchange in Seaspeak might go something like this:

"Neverspill, this is Oil Dock 4".

"Oil Dock 4, this is Neverspill, over".

"Neverspill, this is Oil Dock 4. Warning, severe weather is forecast, please be prepared to stop transfer and disconnect hoses. Over".

"Oil Dock 4, this is Neverspill. Warning received: severe weather is expected. We will prepare to stop discharging cargo and disconnect the hoses. Out".

Whatever the subject of the message, the same basic principals should apply. In particular, it is important that communications be kept as simple and clear as possible, as in the example below.

"Neverspill, this is Oil Dock 4".

"Oil Dock 4, this is Neverspill, over".

"Neverspill, this is Oil Dock 4. Request; we have an intoxicated crew member detained at the gate. Please

## IMO's Seaspeak: the basics

Each radio communication should be carefully structured in the following order:

1. Called station identified
2. Calling station identified
3. Communication clearly established
4. Message identified by a message marker
5. Message communicated by calling station
6. Response or answer by called station
7. Message check/acknowledgment by calling station
8. Clear end of communication.

arrange for his care, he will not be allowed through the terminal until sober. Over".

"Oil Dock 4, this is Neverspill. Request received; intoxicated crew member is at the gate, we are contacting the ship's agent to arrange for transportation and lodging. Over".

"Neverspill, this is Oil Dock 4. Understood, agent will arrange for transportation and lodging for the intoxicated crew member. Request; please send crew to keep crew member until agent arrives. Over".

"Oil Dock 4, this is Neverspill. Request received; positive. We will send the bosun to the gate to watch the crew member until the agent arrives. Over".

"Neverspill, this is Oil Dock 4. Understood, bosun will go to gate and watch crew member until agent arrives. Out".

The officer is likely to understand the written English language much better than the spoken word. Often they can comprehend a phrase or word after seeing it written out. If one single word is of particular importance (or a name must be passed) it is sometimes better to spell the word out. The International Code of Signals lists words that all seafarers are trained to recognise as standing for letters of the English alphabet.

It is important to let port personnel know that a mariner is not stupid if they don't have a good mastery of English. A junior ship's officer has spent up to five years of training at a college level to become a third officer. His examination lasted about a week and required a near-perfect score. Meanwhile, the chief officer often has had about 15 years in the business and many more exams. Masters may be embarrassed because of their limited understanding of English. Giving them a hard time or being disrespectful will not improve the safety of the cargo transfer. Remember that the safe transfer of cargo is your principal objective.

No matter how your patience is being tried, so long as there is sufficient communication to continue the transfer safely, the terminal should do its best to work with the ship's crew. However, if the terminal staff think that the crew's English competence is too poor to be able to continue the transfer safely, they should shut down cargo operations and call the supervisor. **PH**

*Captain Thomas W Hudson is operation superintendent, tanker, at Mitsui OSK Bulk Shipping (USA) Inc  
More info: [www.molbulk.com](http://www.molbulk.com)*

## Ten steps to success in Seaspeak

1. Use correct radio procedures.
2. Follow the IMO communications format.
3. Keep messages short, simple and clear.
4. Repeat exactly when requested to do so.
5. Use the phonetic alphabet if necessary.
6. Be respectful and patient.
7. Cover only one subject at a time.
8. Avoid slang expressions, abbreviations and contractions. Use "cannot" rather than "can't".
9. Avoid use of CB radio terms such as "10-4".
10. Keep adjectives to a minimum.





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## MAINTENANCE DREDGING GWYNEDD COUNCIL

Gwynedd Council is inviting expressions of interest from suitably experienced dredging contractors seeking to be included on a short list of contractors invited to tender for maintenance dredging works in Pwllheli Harbour and Victoria Dock Caernarfon.

A dredging strategy is currently being prepared for both locations and it is anticipated that the scale of maintenance dredging will require dredging of between 5,000m<sup>3</sup> and 10,000m<sup>3</sup> of material from each location. The material in Caernarfon is generally silts and in Pwllheli Harbour there is a mixture of silts, sands and gravels. Subject to securing the necessary consents a local disposal option is anticipated in both locations.

The deadline for receipt of applications is the 15th December 2008. Please apply in writing, providing full details of the Company, plant and equipment schedules and details of similar projects undertaken. Expressions of Interest should be forwarded to:

Mike Ward, Director, Marina Projects Ltd, The Design Office, Endeavour Quay, Mumby Road, Gosport, Hants, PO12 1AH.

Tel: 023 9252 6688

email: [mikeward@marinaprojects.com](mailto:mikeward@marinaprojects.com)



## Cutting out the middle man

Logistics centres and parks based around ports could change the way goods reach the customer. **Martyn Pellew** considers the UK perspective

**S**ince the introduction of containerisation, UK importers have had to incur the financial and environmental burden of hauling maritime shipping containers, often weighing in excess of 4 tonnes, hundreds of kilometres across the country. Containers are taken from a southern English port by rail or road to a national distribution centre (NDC) – which typically is located in the centre or the north of the UK – where they are unloaded and the goods forwarded to retail outlets.

Once they have been unloaded, the empty containers are sent back south to the port. A similar cost is incurred in the transport and handling of the empty containers on their return journey.

It is often the case that imported products destined for UK retail stores are carried past their final destination on their way to the NDC. Days or even weeks later they head back down the same motorway to be delivered

to the store. This wasteful duplication of movement is inefficient, costly and harmful to the environment.

Focusing logistics activities on the port rather than on a distant national distribution centre allows containers to be unloaded and their goods distributed as close as possible to the quayside. Port-centric logistics simplifies and rationalises the distribution system, because all that is needed is to:

- Unpack the container within the port itself using specialist teams
- Leave the container at the port ready for the shipping line to reposition
- Store, load and deliver the goods, usually palletised on taut-liners.

As the first point of access to the supply chain, port operators are in the ideal position to create their own logistics solutions. By asking, “What can we do to enhance efficiency and improve the supply chain?”





Photo: EWS

**Right on track ...  
UK rail freight  
operator EWS  
(English, Welsh  
and Scottish  
Railway) moves  
goods for  
supermarket  
chain, ASDA**

they have begun promoting the services and facilities that are available within their ports as part of a broader logistics solution.

Among these innovators is PD Ports. It wants to provide all the processing associated with container shipping in British ports as close as possible to the product's final UK destination. Unpacking, storing and loading goods at the port for onward delivery to the stores would directly benefit the supply chain at multiple levels – and it would minimise the supply chain's environmental footprint, maintains PD Ports.

Retailers should also see a reduction in shipment delays because their products will not be caught up in the southern UK's congested roads and ports. A marked increase in the accessibility of the cargo will be a further benefit.

There is already a strong trend of moving away from road haulage in the UK in favour of more environment-friendly and operationally beneficial alternatives. Retailers and logistics companies are increasingly favouring rail and water transport.

Following government approval for the Northern Gateway Container Terminal (NGCT) – and before construction work has even started at the site in Teesport, northeast England – shippers and retailers are anticipating the benefits of direct services between southeast Asia and northern England. When NGCT's

## Port-centric logistics: the benefits

- Elimination of quayside rent and demurrage bills
- More transparent knowledge and movement of cargo
- Increased DC bypass and cross-docking, resulting in little or no storage time for the container
- Reduced factory-to-shelf unit logistics costs
- Reduced inventory across the supply chain
- Reduced carbon footprint, as containers stay in the port.

first phase of construction is complete in three years' time, imported containers will be arriving much nearer to their final UK destination.

Many shipping lines already use feeder services to move containers from southern ports to Teesport and the area is increasingly being considered a good location for retailers' northern distribution centres. Several major UK and global retailers are looking at operating port-centric distribution facilities.

UK supermarket chain Tesco recently announced plans to build a 112,000m<sup>3</sup> import complex on land at Teesport. Its corporate affairs manager, Juliette Bishop, highlighted the benefits of port-centric logistics: "We need to increase our storage capacity to deal with the increased levels of imported containerised goods, and building a storage facility at the port removes the need to move stock from the port where it is imported to a storage facility inland. As well as reducing the double handling of imported stock, this will help to reduce the road-miles that products travel, which is better for the environment."

This approach has already proved successful for ASDA, a British-based supermarket chain owned by the US Wal-Mart Group. In 2005 it invested £20M (\$35M) in a new 33,000m<sup>3</sup> import facility at Teesport, with the aim of becoming more flexible and responsive to customer needs. The company found that by shipping 70% of its non-food imports destined for northern consumers directly to Teesport, it was able to save an estimated 3.2M road-kilometres a year. The virtual elimination of inland container movements in the UK has enabled ASDA not only to cut its costs significantly, but also to limit the environmental impact of its distribution operations.

Companies like Tesco and ASDA are leading the way in using port-centric logistics to improve supply chain efficiency. Other businesses across the UK also have the chance to embrace this approach and take better control of their supply chains.

Britain's entire logistics structure is facing change as retailers recognise the potential of a direct link from southeast Asia to the Northern Gateway Container Terminal and to the doorsteps of consumers in Scotland and northern England. **PH**

*Martyn Pellew is group development director for PD Ports  
More info: [www.thpal.co.uk](http://www.thpal.co.uk)*

# MEPC moves green issues forward

As the Marine Environment Protection Committee (MEPC) completed its 58th meeting on 10 October, the IMO's secretary-general Efthimios Mitropoulos called its progress "a magnificent and monumental piece of work". The meeting adopted Annex VI 2008 of MARPOL, which will come into force on 1 July 2010.

In addition to MARPOL, MEPC 58's busy agenda included

reducing greenhouse gas emissions, drafting a ship recycling convention and moving forward the ballast water convention.

The amended Annex VI will see a progressive reduction in sulphur dioxide (SOx) emissions from ships, with the current global sulphur cap of 4.5% in fuel reduced initially to 3.50%, as of 1 January 2012, then progressively to 0.50 %, effective from 1 January 2020. A

feasibility review is to be completed no later than 2018. In sulphur emission control areas (SECAs), the limits will be reduced to 1% from 1 July 2010 and 0.1% from 1 January 2015.

Progressive reductions in nitrogen oxide (NOx) emissions from marine engines were also agreed at the meeting.

The committee continued its work on the issue of greenhouse gas emissions and has made progress on the proposal, initially from the industry, that every ship should have an energy efficiency

design index (EEDI) and an energy efficiency operational index (EEOI), as well as a ship efficiency management tool.

A draft convention to provide global regulations for the recycling of ships was also agreed. It will be forwarded to members in advance of a diplomatic conference to adopt the convention in May 2009. The convention will apply to new ships from the time the convention is ratified, while existing ships will eventually fall under the regulation too.

Some IMO instruments are taking longer than anticipated to come into force. An example is the 2004 Ballast Water Management Convention. It was due to apply to ships built in 2009 and onwards, but because there was no proven technology to rid ballast water of alien species, 2009-built ships will have a period of grace and 2010 is the next date for implementation.

Examples of ecological damage caused by transfer of non-native species in ballast water include the zebra mussel in the North American Great Lakes and the comb jelly in the Black Sea and the Caspian

Delta. To date, hundreds of millions of dollars have been spent in Canada and the US in clearing cooling water and freshwater intakes throughout the Great Lakes where the zebra mussel has spread.

This year, the GESAMP (Group of Experts on the Scientific Aspects of Marine Environmental Protection) Ballast Water Working Group has held two inter-sessional meetings where members pored over the specifications and test results of several proposed systems for treating ballast water.

Approvals, both basic and final, have been given to some systems. Environmental group Friends of the Earth told *Ports and Harbors* that the Oceansaver system has already attracted orders for more than 100 new buildings.

The next step is for details of other systems to be submitted in December for consideration at the next working group meeting in April 2009. It is hoped that by next year a selection of effective solutions for the treatment of ballast water will be ready to be installed in ships.



Photo: NOAA

**Zebra mussels, which have caused havoc in the US, are one species the Ballast Water Convention hopes to combat**



Photo: US EPA





**FDC workers get down to the business of dredging following the correct safety procedures, including wearing their personal protective equipment**

audits, there were no non-compliances reported, no non-conformities were registered and the project was executed without a single 'lost-time injury'. Other governing standards audits were also undertaken.

A hazard identification meeting was held so that there would be advance warning of potentially hazardous events and their impact on people, property and the environment. This day-to-day attention to detail led to FDC's client commenting that the dredging company had created "a culture of safety".

The IADC Safety Award is presented annually to an IADC member company, project or vessel crew that is able to demonstrate exceptional safety performance. The reward acknowledges the positive impact that overall safety has for a project, client and the contractor.

Photo: Terra

## Safety rewarded

Flanders Dredging Corporation (FDC), a subsidiary of Jan De Nul Group, was awarded the International Association of Dredging Companies (IADC) Safety Award for its project at the Australian Marine Complex in Jervoise Bay, Western Australia.

The IADC Board recognised the safety performance of the project as outstanding, especially given

the limited execution time of just two months.

The project began in August and to ensure safety during its implementation, FDC's client appointed an external body to conduct three audits: occupational safety and health suitability; occupational safety and health compliance; and a site safety survey report. During these

## Research hub role for Singapore

The Maritime and Port Authority of Singapore (MPA) and the Institute of High Performance Computing (IHPC) – part of a Singapore government technology research organisation, A\*STAR – signed a memorandum of understanding at MPA's 12th Maritime Forum on 19 September.

The MoU's overall objective is to enhance Singapore's status as a maritime research and development hub.

It is hoped that the S\$3.4M (US\$2.2M) collaboration will enable maritime companies to benefit from IHPC's computational science and engineering capabilities through a three-year maritime research programme.

Suitable areas of development that have allready been identified include advanced designs for semi-submersible jack-up rigs and the application of large-scale computational fluid dynamics.

The memorandum of understanding was signed by Tay Lim Heng, chief executive of MPA, and Yena Lim, managing director of A\*STAR. Speaking at the ceremony, Tay said: "MPA has been actively promoting maritime R&D and innovation development over the past few years. Today's MoU brings on board the involvement of a national

research institute in the areas of port, shipping, and offshore and marine engineering. We welcome the participation of maritime companies in the programme. In the mid- to long-term, maritime R&D would bolster the competitive edge of our maritime cluster, as we strive to grow Singapore as an international maritime centre."

Lim added: "Since its inception 10 years ago, IHPC has collaborated with the maritime industry through specific industry-oriented research projects. Over the past three years, IHPC has undertaken over 150 collaborative projects with various industry partners to leverage on IHPC's visualisation facilities and its multi-disciplinary R&D manpower.

"Today's signing marks a consolidated effort to encourage Singapore-based maritime companies to take full advantage of advanced modelling and simulation methods to innovate and optimise on performance of engineering systems," Lim concluded on behalf of A\*STAR.

As part of its efforts to expand the Singapore maritime cluster, the port authority has been working with key agencies, industry partners, and the research community – both local and foreign – in promoting maritime research and development.

## Bunker spill rules in effect

IMO's International Convention on Civil Liability for Bunker Oil Pollution Damage finally came into effect on 21 November. It was adopted in 2001 to ensure that adequate, prompt and effective compensation is available to persons who suffer damage caused by spills of oil carried as fuel in ships' bunkers.

Other regimes covering oil spills do not include bunker oil spills from vessels other than tankers.

The agreement is modelled on the International Convention on Civil Liability for Oil Pollution Damage, 1969. As with that convention, the new bunker rules require a vessel's owner to maintain compulsory insurance cover or other financial security.

Another provision is the requirement for direct action enabling a claim for compensation for pollution damage to be brought directly against an insurer.



## UN resolves to tackle Gulf of Aden piracy

The United Nations Security Council has passed a new resolution to combat piracy off the coast of Somalia.

Resolution 1838, passed on 7 October, calls on countries interested in maritime security to take part "actively" in the fight against piracy by deploying naval vessels and military aircraft. It also requests countries with naval or military assets in the area to use "necessary means" to repress acts of piracy. Even before it was passed, several countries had pledged to send naval vessels to the area. Unlike previous resolutions, Resolution 1838 does not have any time limit.

The UN resolution was welcomed by the coalition of shipping bodies that had issued a statement on 29 September criticising governments and the coalition navies that patrol the Gulf of Aden. BIMCO, the International Chamber of Shipping and the International Shipping Federation, Intercargo and Intertanko and the International Transport Workers' Federation charged that "the pirates are operating with impunity, and governments stand idly by."

Highlighting the fact that the pirates are operating in and around one of world's most strategically important seaways, linking Europe to Asia via the Red Sea/Suez Canal, the statement continued: "The shipping industry is utterly amazed that the world's leading nations, with the naval resources at their disposal, are unable to maintain the security" in these areas.

The statement was issued in response to comments attributed to leaders of the Coalition Task Force operating in the Gulf of Aden maintaining it was not the job of the force to protect merchant ships and their crews from pirate attacks off the Somali coast.

Commodore Keith Winstanley of the UK Royal Navy, deputy commander of the Combined Maritime Forces in the Middle East, said: "The root cause of this [piracy] is in Somalia. Collectively, if we want to address Somalia piracy, that's where we must go. I simply don't have the resources to flood the Gulf of Aden with ships. It's impossible to guarantee security. We are not the solution to this problem."



Photo: Port of LA

**Going green: this truck at the Port of Los Angeles is claimed to emit no air pollution**

## LA/LB bans dirty diesel trucks

In October, the Clean Truck Program was launched in Los Angeles, USA.

The initiative will effectively result in the immediate banning of over 10% of port trucks (2,000 dirty-diesel trucks) from the ports of Los Angeles and Long Beach and remove over 350 tonnes of harmful emissions from Los Angeles' air. It is cited as one of the country's most ambitious air-pollution clean-up initiatives.

"People said the fight would be too hard, but we kept on truckin' because we knew that the people of our port communities needed relief. We can proudly say that our Clean Trucks Program will begin on schedule, as planned, with more than enough drivers,

trucking companies and clean trucks to meet the port's demand," said LA mayor Antonio Villaraigosa.

Trucks built before 1989 – the first year of diesel pollution control – will be banned and by 2012 the programme will bar any truck that does not meet the cleanest 2007 emission standards. Elderly trucks emit the pollutant nitrogen oxide (NOx) in addition to harmful diesel particulates.

The success of the programme hinges on the participation of the trucking companies that carry goods from the ports to the distribution centres and retail stores. According to the mayor's office, 598 companies have signed up to participate, which means they are agreeing to abide by the

programme's environmental, operational and security requirements. They will use more than 21,000 clean trucks to haul goods from the ports to the rest of the region.

According to the California Air Resource Board, every year 1,200 premature deaths across the state are attributable to pollution caused by port trucks. Asthma rates among children living in neighbourhoods within the vicinity of the ports – 15% of all children under 17 – are double the national average. Dock workers and truck drivers face significantly elevated risks of lung and oropharyngeal (throat) cancer, according to US Census figures and local studies.

## Ports merge data to increase efficiency

The ports of Rotterdam and Amsterdam will merge their individual port community systems – Port infolink and PortNET – into one single joint port community system as from 1 July 2009. It is hoped that the joint system will enable wider data exchange between companies, port authorities and customs, which in turn will offer the ports' customers a wider range of services.

In practice, the co-operation will mean that from

mid-2009, participants in Amsterdam's PortNET will be able to make use of the services of Port infolink to exchange data. To make this possible, the Port infolink services will be integrated to suit Amsterdam's needs. Once this has been achieved, any redundant systems will be phased out.

A new technological platform, comprising both existing and new functionalities, has been developed that will become available in 2010.



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Photo: Port Authority of Genoa



Port of Genoa for IAPH's World Ports Conference. Below right: *First Announcement* is out now

## Port of Genoa welcomes IAPH

Competition has been intensifying in the western Mediterranean. Historic ports and new entities alike are expanding their facilities for cargo handling and passenger activities. Genoa is a noble representative of the 'old guard'.

To continue its leadership, the Italian port is striving to cope with fierce competition not only from nearby EU countries but also from the 'new kids' of North Africa.

Like many ports, Genoa is struggling to ensure its facilities can cope with demand. With 29 terminals, it can support annual throughput in excess of 58M tonnes of cargo and almost 4M

passengers. It is a multi-service port, acting as the main gateway for Italian import and export traffic and a prominent hub for the whole maritime trade of southern and central Europe.

The port has had to balance the need for construction and modernisation, with due consideration of the impact on the city community located next to the port's commercial and industrial quays.

This challenge has been tackled through a process of detailed planning and solid investment as set out in its port masterplan.

Next year, for the first time, the

Port of Genoa will host IAPH's 26th World Ports Conference. The event's theme is *Oriented to the market – Open to the future*, and it will be held from 25 to 29 May.

The *First Announcement* brochure for the conference is now available, giving details of the programme and working group discussion themes. It also contains the accompanying persons' programme and useful travel and booking information.

A topical subject on the agenda is the pivotal role that ports can play as agents for tackling climate change. The experience of Genoa – a port city that successfully

combines the historic charm of its old world surroundings with a thriving maritime hub – can be a model to many ports worldwide.

"During the conference we will have the opportunity to discuss such challenging issues together with the huge number of delegates expected to attend from hundreds of ports around the globe," declared Luigi Merlo, president of the Port Authority of Genoa. He listed the issues that face any port's management: "Globalisation and relocation of production activities, traffic growth and new patterns of cargo flows, security and safety, co-existence of old ports and their cities in adjoining territories, smooth landing of cargo to the hinterland [and] saving of the environment."

For web registration go to: [www.iaphconference.it](http://www.iaphconference.it)



## IAPH Essay Contest 2009

IAPH invites entries for its 2009 essay contest

Do you have some good ideas about how to improve your port or the port industry? IAPH is calling for entrants to its essay contest. Fabulous prizes include a total of \$3,000 in prize money, plus the chance to go to the IAPH 26th World Ports Conference in Genoa in May 2009.

There are two essay competitions – the Akiyama Award and the Genoa Open Essay – and the deadline for both is 27 February 2009. Essays should be between 800 and 1,000 words in length and are accepted in Microsoft Word format via email or as hard copy delivered by courier.

### AKIYAMA AWARD

This is open to all young IAPH Regular Members' staff in developing ports – defined as low-income and lower middle income countries.

Essays must offer analysis and suggestions on how to improve your port with respect to one of the following: efficiency; safety; security; environment; marketing; usage of premises. You should not draw from actual projects or ideas being considered at your port. Submissions will be accepted in English, or French with an abstract paper in English.

Evaluation will be based on originality and creativity, logical clarity, use of facts backed by actual figures and the feasibility of suggestions. It will be judged by the chair of the Human Resource Development Committee, the IAPH secretary general, and two executive committee members.

### GENOA OPEN ESSAY

Celebrating the World Ports Conference in Genoa, this competition is open to all port staff from IAPH's regular and associate members. Essays must address either: port responsibilities towards global warming or the local community in relation to the port. The judges will be looking for sharp insights and inspiring opinions. Considerations include originality and creativity, logical clarity, good use of facts based on real figures, and the feasibility of implementing the project. Essays must be in English.

The IAPH Secretariat will notify winners of both competitions in early April 2009.

More information: [www.iaphworldports.org](http://www.iaphworldports.org)





Frans van Zoelen, chair of IAPH's legal committee, represented the organisation

## Assess distress objectively, says IAPH in Athens

IAPH's position on places of refuge was clearly defined at the 39th Conference of Comité Maritime International (CMI) held in Athens in October.

Frans van Zoelen, chair of IAPH's legal committee and head of Port of Rotterdam's legal department, explained that IAPH disagrees in principal with a draft instrument produced by CMI on the basis that coastal states are not legally obliged to provide unconditional access to places of refuge. IAPH's stance, he said, is that states have the right to decide for themselves.

He told delegates: "In my view it cannot be stressed enough that the subject of places of refuge touches the core of a national state's sovereignty, ie the right of a coastal or port state to decide for itself and to protect its vital interests, which is recognisable under international law."

The risks involved from taking in a ship in distress are huge, he emphasised. By accepting such a ship, a state could be absorbing the risk of a "major maritime disaster". IAPH favours a case-by-case approach on the basis of good public and private management. "Ships in distress must be assessed objectively to

determine their condition and requirements and the risks attached to them," he said.

Van Zoelen explained that to create the right framework for coastal states to provide places of refuge, two pre-conditions need to be met: "a waiver of any right to global limitation of liability by the shipowner; security for an open-ended amount given by a first-class bank, insurance company or other financial institution."

He was keen to emphasise that, "IAPH is not at all unsympathetic towards casualty ships." He also acknowledged that it is of great interest to IAPH, saying: "In most of the cases the place of refuge happens to be a port of refuge."

In his concluding remarks, Van Zoelen commented that, while not in agreement with the proposed instrument, IAPH does believe it is a useful development in common standards and practices, "leading to an international objective framework for decision making concerning ships in distress". IAPH's work on this issue has proved successful. Since the presentation was delivered, revisions have been made to CMI's draft instrument. This draft will be sent by CMI to IMO's legal committee.

## IAPH IT Awards 2009

IAPH invites entries for its 2009 IT Award

This competition is organised by IAPH's Committee on Trade Facilitation and Port Community Systems to promote the use of information technology (IT) in ports. The award will be made to a port that recognises the benefits of innovative IT in relation to the port itself, its customers and the logistics chain.

### CONDITIONS OF ENTRY

The 9th award, to be presented in Genoa in 2009, is open to entries from any regular or associate member of IAPH. Any project focusing on port-related IT, which has been completely or substantially implemented in the past two years, may be submitted, whether purely internal to the port operator or authority or involving the port community system or outside organisations.

The winner will be the project or application that is judged to have contributed the greatest benefit to the port or wider community.

The following criteria will be considered:

- Improvement: time and cost saving; safety and security; environmental protection; interoperability along logistics chain; integration of procedures; transparency; data exchange
- Innovation: concept; technical and institutional aspects
- Complexity and obstacles: scope of works; components of the project; stakeholders; obstacles and constraints; details of initial situation
- It is specifically intended to reward the most innovative IT solutions providing improved performance and integration to the logistics chain to members of a port community and its customers. It is specifically intended that these criteria will enable ports in less developed countries, perhaps with limited resources and their own particular circumstances, to compete for the award alongside those who already use available technology extensively. Relative improvement for a port will be a key factor for comparison.

### PROJECT DESCRIPTION

Submissions should be presented in a Microsoft Word or Power Point format and follow these guidelines:

- Project summary – description of the project in no more than 400 words, including the business problem, technical solution, date of implementation and time taken to achieve results
- Results achieved – in under 400 words, specific performance measurements to show the improvement resulting from implementation of the project. Examples could be cost savings, time savings or increased operational capability. Explain who benefits from the implementation of the project and how
- Obstacles overcome – in under 300 words, explain the primary problems that had to be overcome or avoided during the project's progress and how these were countered
- Technology base – in under 300 words, provide an indication of the level and extent of technology in use within the organisation before implementation of the submitted project.

**Gold, silver and bronze plaques will be presented for the best entries.**

### SELECTION COMMITTEE

The members of the four-strong selection committee will be the chairman of the IAPH Trade Facilitation Committee; a representative nominated by the Port of Genoa or IAPH Secretariat; a member to be nominated by the chairman of the Committee on Trade Facilitation and Port Community Systems; and Satoshi Inoue, secretary general of the IAPH.

Submissions should be in English and the deadline is 28 February 2009. Entries may be submitted by email or on paper (4 copies).

### NOTIFICATION OF RESULTS

Winners will be notified in good time to allow the presentations to be made during the 26th IAPH World Ports Conference in Genoa, Italy, 25–29 May 2009.

The award-winning entries will be published in P&H and on the IAPH website.

More information: [www.iaphworldports.org](http://www.iaphworldports.org)

Photo: Dave Rodis



**Speaking out: co-ordination in the logistics chain is key, said IAPH president Datin Paduka OC Phang**

## IAPH president talks logistics

IAPH president Datin Paduka OC Phang was invited to speak at a FIATA (International Federation of Freight Forwarders Associations) conference in Vancouver, Canada, on 23 September, where she highlighted the important role that logistics play in world trade.

Referring to the added value that logistics brings to business, Phang said that it is "in the interest of any nation to develop the industry to make it an important sector in their economy".

Noting that just 20 companies

own about 65% of world transport capacity, she cautioned: "This means that small operators entering the global market with the objective to provide logistics must be aware of the limitations as well as the market structure."

Against a backdrop of changing global dynamics and trade expanding into a "borderless world", Phang acknowledged that ports are evolving to fit the impacts of these changes.

She said: "Ports are transforming themselves from the traditional

role as an interface from maritime and land transport to more integrated logistics hub ports where a range of added values are created as an essential centre of a global seamless logistics network."

Phang also heightened the diverse role that port managers are now expected to fulfil, as "manager of the port community as a whole, co-ordinating all players, public and private, including those beyond [the] port boundary to the inland".

She highlighted the fact that

there are so many players in the international logistics industry – ranging from the large multi-national companies to small local service providers.

She pointed out: "It is vital to co-ordinate the various players, the public and private sector, with local and foreign, to provide efficient services for the economy".

She also drew the attention of the delegates to the C40 World Ports Climate Conference (WPCC), in Rotterdam in July, during which ports, cities and business partners agreed on a joint approach to reduce greenhouse gas emissions (GHG) – A World Ports Climate Declaration was signed.

"It was also recognised," she said, "that there is strong evidence that connects GHG emissions to the devastating effects of climate change and that ports, port operations and industrial activities at ports contribute towards greenhouse gas emissions."

She highlighted some practical measures – for port, land and sea – which had been identified during WPCC:

- Port and terminal operators should consider stipulating in lease contracts the need to comply with acceptable emissions
- Shipping should consider incentive schemes for shore power availability
- Manifestation of an efficient and innovative inland logistics chain.

Phang went on to add that IAPH is taking the lead in ensuring that the conference's resolutions are followed up.

## Membership notes

The IAPH secretariat is pleased to announce that two new members have joined the association.

### Regular member

#### National Port Administration (Uruguay)

Address: Rambla 25 de Agosto de 1825, No.160, piso, Montevideo 11000, Uruguay  
 Telephone: +598-2-190-1819  
 Fax: +598-2-916-1816  
 Email: adiaz@anp.com.uy  
 Website: www.anp.com.uy  
 Representative: Ing Alberto Díaz, general manager

### Associate member

#### AMRIE

Address: 20-22 Rue du Commerce, B-1000 Brussels, Belgium  
 Telephone: +32-2-736-1755  
 Fax: +32-2-735-2298  
 Email: rwalker@amrie.org  
 Website: www.amrie.org  
 Representative: Ray Walker, director  
 Nature of business: European maritime policy non-profit organisation



Members of the ICHCA visited IAPH's offices in September

## Strengthening relations

The new chairman for the International Cargo Handling Coordination Association (ICHCA) – a friendly organisation to IAPH – John F R Strang, visited the IAPH Secretariat in Tokyo on 18 September. He served as active representative member of the ICHCA Australia section for many years. The purpose of his visit was to strengthen the mutual partnership between the two associations.

Pictured above, from left to right: Dr Hajime Tsuchida, chairman of ICHCA Japan; John Strang; Dr Satoshi Inoue, IAPH secretary general; Yoshiharu Yoshida, secretary general of ICHCA Japan.

## Reviewing China's ports

IAPH, together with the China Ports and Harbours Association (CPHA), recently launched *Ports in China*, which gives up-to-date information on Chinese ports.

As world trade with China grows year on year at a phenomenal rate and with Chinese ports constantly expanding, it is essential for the maritime industry to have correct information to hand. This book provides a guide to the national port structure and gives details of the main ports and their development. In his foreword, Dr Satoshi Inoue, IAPH secretary general, acknowledges this need, commenting that it is "rather difficult, if not impossible, to come across any well-documented reports in English on Chinese ports".

The book has three sections:

■ Part one details the relationship between central government and the provinces, with the decentralisation of the 25 main coastal ports making up the five coastal hub districts consisting of the Bohai Rim, Yangtze River Delta, Southeast Coast, Pearl River Delta

and the Southwest Coast.

■ Part two describes changes to port management over the years.

■ Part three provides the bulk of the volume and examines each of China's top 12 ports in detail. This includes a breakdown into districts – often difficult for the overseas observer to establish – terminal and berth details, handling equipment and throughput tonnage or teu handled. Information on port development schemes – proposed projects and those already under construction – is supported by a good spread of colour images, plans and maps.

Finally there are two appendices reviewing port statistics and port laws and regulations.

The clear contents section makes the book particularly easy to use. In summary, it gives a very useful insight into the progress of Chinese port development.

For further copies, please contact the IAPH secretariat on +81-3-5403-2770, or email [info@iaphworldports.org](mailto:info@iaphworldports.org).

## Dates for your diary

A selection of forthcoming maritime courses and conferences

### November

- 18–20:** TOC Americas 2008 – California, US  
*More info: [www.tocevents-americas.com](http://www.tocevents-americas.com)*
- 18–21:** Bahamas International Maritime Conference and Trade Show - Grand Bahama Island  
*More info: [www.bahamasmaritimeconference.com](http://www.bahamasmaritimeconference.com)*
- 22–26:** Seminar on Dredging and Reclamation – Abu Dhabi, UAE  
*More info: [www.iadc-dredging.com](http://www.iadc-dredging.com)*
- 24–26:** 8th International Conference on Coasts, Ports and Marine Structures – Tehran, Iran  
*More info: [www.icopmas.pso.ir](http://www.icopmas.pso.ir)*
- 23–25:** WPCI (World Ports Climate Initiative) – Los Angeles, US  
*More info: [www.iaphworldports.org](http://www.iaphworldports.org)*
- 24–25:** Managing Maritime Emergencies – London, UK  
*More info: [www.lloydsmaritimeacademy.com](http://www.lloydsmaritimeacademy.com)*
- 25–26:** 4th Trans Middle East 2008 – Dubai, UAE  
*More info: [www.transportevents.com](http://www.transportevents.com)*

### December

- 1–2:** Ports & the Environment – Amsterdam, the Netherlands  
*More info: [www.millenniumconferences.com](http://www.millenniumconferences.com)*
- 2–4:** Intermodal 2008 – Hamburg, Germany  
*More info: [www.intermodal-events.com](http://www.intermodal-events.com)*
- 14–16:** Seatrade Middle East Maritime 2008 – Dubai, UAE  
*More info: [www.seatrade-middleeast.com](http://www.seatrade-middleeast.com)*
- 15–18:** 7th PAPC Conference – Djibouti (IAPH Africa/Europe Regional Meeting, 15 December)  
*More info: [www.pmaesa.org](http://www.pmaesa.org)*

### January

- 15–16:** Shifting International Trade Routes – Tampa, US  
*More info: [www.aapa-ports.org](http://www.aapa-ports.org)*
- 21–23:** SMM Istanbul 2009 – Istanbul, Turkey  
*More info: [www.hamburg-messe.de](http://www.hamburg-messe.de)*

### February

- 12–13:** 5th Philippine Ports & Shipping 2009 – Manila, Philippines  
*More info: [www.transportevents.com](http://www.transportevents.com)*
- 18–20:** TranSec India Expo 2009 – Mumbai, India  
*More info: [www.transecindia.com](http://www.transecindia.com)*
- 25–26:** GreenPort Ecoports 2009 – Naples, Italy  
*More info: [www.green-port.net](http://www.green-port.net)*

### May

- 25–29:** 26th IAPH World Ports Conference – Genoa, Italy  
*More info: [www.iaphconference.it](http://www.iaphconference.it)*





# Finding funding

**Bara Sady**, managing director of the Port of Dakar Authority in Senegal, and member of the IAPH Executive Committee, believes in private investment for developing ports

High building costs, technical complexity and a long return on investment have meant that port infrastructures in Africa have traditionally been funded through multilateral financial institutions, such as the World Bank, the French Development Agency, the African Development Bank and the Islamic Development Bank.

World traffic is growing rapidly. However, some ports lack an adequate funding strategy and this has resulted in lack of equipment and decaying port infrastructure. Infrastructure in sub-Saharan African ports is not up to date and there are two reasons for this that I believe should be considered.

First, port authorities have trouble outlining their real funding needs in relation to growth in traffic through ports – some ports have no ‘master plan’. Consequently, a great deal of time is spent seeking funding. When finally obtained, the funds prove insufficient before the project is implemented. This results in the development of inadequate, under-sized and substandard piers or other port infrastructure.

The second point addresses the need to bridge the infrastructure gap between sub-Saharan African ports and ports in developed parts of the world. To make this happen, funding is required to implement adequately designed and streamlined systems and structure. More efficient sources of funding should be found.

I would like to open up the debate

by briefly describing two options for funding and the minimum conditions that should be guaranteed:

**1.** There are real benefits to be found in both international and regional financial markets. Loans tend to be timely and cost-effective, there is an availability of funds and no risk of exchange. This approach requires external auditing to ascertain the port’s financial situation and its business prospects. West African financial markets need to extend the duration of their loans to make them a viable option for expanding and developing ports. The impact of the international financial crisis must be taken into consideration to better know the risks involved at each level, whether international, regional or local.

**2.** The port concessions scheme appears to fund heavy investments at a very low cost. The success of this kind of public-private partnership depends on having an appropriate legal and institutional framework on the one hand, and transparency in the bidding process on the other.

The Port of Dakar has experienced success with these two schemes. It has built an additional 35ha of stacking area and 500m of berth. The next step will be building the ‘port of the future’ by the operator. It will have 1.5km of berth space and a 15.5m draught. The 50ha of stacking area will be equipped with the latest generation of gantry crane. **R&I**

“Some ports have no ‘master plan’. Consequently, a great deal of time is spent seeking funding”



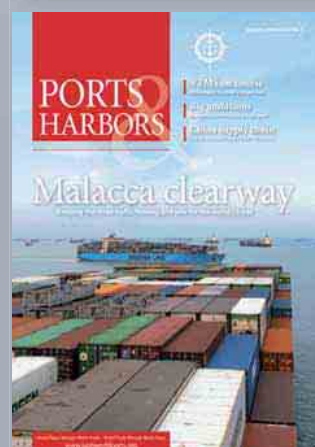
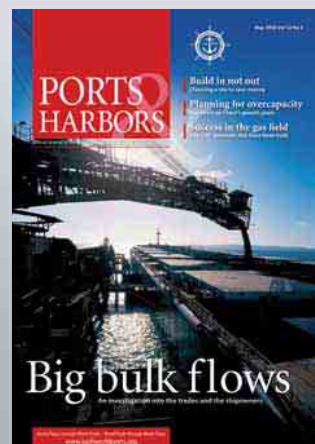
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