



# PORTS HARBORS

Official Journal of the International Association of Ports and Harbors

## Bureaucracy

The serious risk to Italian ports

## Fighting the Rot

Dover's new approach to ALWC

## Enemy at the Gate?

Ports' impressions of working with ISPS

# Security At A Price

The costs of ensuring secure commerce at the US Port of Tacoma



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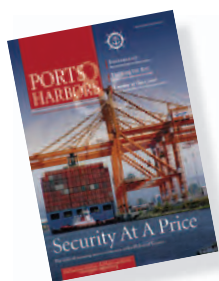
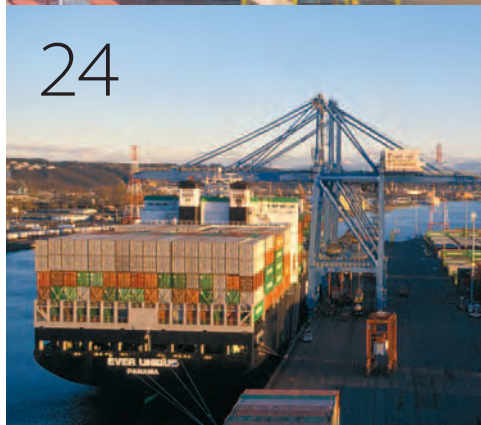
the world. Mail or fax us to ask how Cavotec Specimas motorized cable reels and the Panzerbelt system can help your port or terminal become more profitable and efficient. As reliability is a key factor it is supported by the extensive Cavotec service network which is also locally active in the United States.

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Mount Rainier looms over the security conscious Port of Tacoma

March 2005  
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Cover image: Port of Tacoma

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# PORTS HARBORS

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## PORTS & HARBORS

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## PUBLISHER

**Dr. Satoshi Inoue**  
Secretary General, IAPH  
info@iaphworldports.org

## EDITOR

**Nick Brown**  
nick.brown@lrfairplay.com

## ASSISTANT EDITORS

**Penny Allen**  
penny.allen@lrfairplay.com  
**Stephen Cousins**  
Stephen.cousins@lrfairplay.com

## SALES MANAGER

**Adam Foster**  
adam.foster@lrfairplay.com

## DESIGN & PRODUCTION

**Phil McAllister**  
phil.mcallister@lrfairplay.com  
**Robert Wood**  
rob.wood@lrfairplay.com  
**Mark Ames**  
mark.ames@lrfairplay.com

## MANAGING EDITOR

**G. Paul Gunton**  
paul.gunton@lrfairplay.com

## EDITOR-IN-CHIEF

**Tony Slinn**  
tony.slinn@lrfairplay.com

## ASSOCIATE EDITOR

**Yuko Akamatsu**  
Assistant Under Secretary, IAPH  
ph@iaphworldports.org

## EDITORIAL & PRODUCTION

**Lloyd's Register-Fairplay Ltd**  
Lombard House, 3 Princess Way  
Redhill, Surrey RH1 1UP, UK

Tel: +44-(0)1-737-379-000  
Fax: +44-(0)1-737-379-001  
Web: www.fairplay.co.uk

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7th Floor, South Tower,  
New Pier Takeshiba  
1-16-1 Kaigan, Minato-ku  
Tokyo 105-0022, Japan  
Tel: +81-3-5403-2770  
Fax: +81-3-5403-7651  
Email: ph@iaphworldports.org  
Web: www.iaphworldports.org

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COMMENT

## A New Era

**D**ear IAPH members, I'm excited to welcome you to the relaunch issue of the IAPH's *Ports & Harbors* journal, with a new design and improved contents in this 50th anniversary year of the association.

*P&H* has always been the organisation's medium to exchange views and information among members and the world's maritime community. Working with *Lloyd's Register-Fairplay*, I'm confident that this publication will provide you with more features, analysis and up-to-date information than ever before. You will also find wide coverage of the latest developments at the United Nations and other international organizations that directly affect your port.

Nevertheless, to ensure further improvement of the magazine, it's critical to receive feedback and suggestions. Moreover, your views and opinions on the various issues facing the port industry are central to make it the most vital port management magazine available, your contributions will always be welcomed and appreciated.

I would also like to express my deepest sympathy for those affected by the tsunami that hit so many countries on 26 December 2004. The executive committee unanimously adopted a resolution to strengthen the preparedness of ports for any future disasters and IAPH has committed itself to working hard to this end.

The March issue of *P&H* features — amongst other areas — the issue of port security, which remains high on our international agenda. This focuses on a survey carried out by the IAPH to identify difficulties and problems that the membership has faced since the implementation of the ISPS code on 1 July 2004.

I trust you will find the new journal of much interest and value — and I look forward to welcoming you all to the 24th IAPH World Ports Conference in Shanghai this May.

**Satoshi Inoue**

Secretary General, IAPH

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## Port updates

### EVERGLADES

The Florida port is to spend US\$16.4M over three years to renovate Terminal 27, expanding parking and passenger support facilities to accommodate mega cruise ships. *More info at [www.broward.org/port.htm](http://www.broward.org/port.htm)*

### GWADAR

Pakistan's federal government has extended the completion date for phase one of Gwadar Deepsea Port by five months to September 2005.

Costs have accordingly been revised to PKR14.92Bn from the original PKR14.90Bn to pay for further dredging work and new gantry cranes. Gwadar's first phase attracted US\$217M in Chinese funding, with the Pakistani government contributing US\$81M. Phase two will cost an estimated US\$865M. *More info at [www.infopak.gov.pk](http://www.infopak.gov.pk)*

### ANCHORAGE

The Pruhs Corporation has won a US\$6.7M contract to improve road and rail infrastructure for phase one of the port's multimillion dollar intermodal expansion project that will allow Anchorage to handle vessels of up to 1,000ft and give it the capacity to service the US military's new Stryker Brigade. *More info at [www.portofanchorage.org](http://www.portofanchorage.org)*

### ARZEW

Spanish energy companies Repsol YPF and Gas Natural have won a massive €1.62Bn contract to build an LNG regasification plant at the Algerian port. The plant will provide 20% of Spain's current domestic LNG needs for the next 30 years. *More info at [www.repsolypf.com](http://www.repsolypf.com)*

### BELIZE

A new deal's been agreed for construction of a BZ\$100M cruise terminal, but local opposition means its future is still uncertain.

Hoteliers have petitioned the supreme court to block the development, claiming a flood of new passengers would destroy Belize's eco-tourism reputation. *More info at [www.belize.gov.bz](http://www.belize.gov.bz)*



Felixstowe's container park

## Crane simulator for Felixstowe

The port aims to improve operator proficiency and enhance overall port productivity in latest venture

In partnership with training simulation specialists Drilling Systems (UK), Felixstowe will provide operational expertise and data from its cranes, terminal tractors / trailers and vessels, as well as environmental data, to enable accurate modelling.

The simulator will be developed in two phases on a modular basis to enable emulation of different crane types through the use of interchangeable control panniers. It will have the capability to replicate the feel of a wide range of Felixstowe's

most modern gantry cranes – from Zhenhua Port Machinery Co (ZPMC), Morris and MGM quayside cranes, to ZPMC and Morris 16-wheel rubber-tyred gantry cranes, handling both 20ft and 40ft containers.

Phase two of the project will provide an upgrade path to a fully mobile system, able to be towed inside a trailer by a suitable 4x4 vehicle to any required site.

The project is scheduled for completion by the end of 2005.

*More info at [www.portoffelixstowe.co.uk](http://www.portoffelixstowe.co.uk)*

## Karla Peijs opens Steinweg

Dutch Minister of Transport Karla Peijs did the honours at the Omani Port of Sohar

The Steinweg terminal is a joint venture between the Port of Rotterdam and the Sultanate of Oman and as *P&H* went to press, 15,000 workers were on site constructing a refinery and plants for the production of polypropylene, methanol and aluminium at the 2,000ha port.

Sohar is based on the 'Rotterdam model', with clusters for containers and distribution, metals, food and (petro)chemicals – and a depth of 17m. *More info at [www.ociped.com](http://www.ociped.com)*

## All change at Mina Zayed?

Dubai Ports International (DPI) plans to resurrect the port...

The January agreement between Abu Dhabi Seaport Authority (ADSA) and (DPI) to develop and manage Mina Zayed could turn around the port's affairs.

Mina Zayed was hit hard by Uniglor's decision to pull out in September 2000 as the USA-based line was pushing 80,000-100,000 TEU a year through the port. Since then, Italy's Messina has been the only main line calling on the port, and container traffic's slipped by almost 50% since 2000.

Part of the problem is that it takes ships around 22 hours longer to get to Mina Zayed compared to the Port of Fujairah, resulting in additional costs. The number of containers coming into Abu Dhabi is generally fairly low as the port depends heavily on cyclical, government-backed projects and shipping lines have to return with empty boxes.

But there's good news ahead.

The Mediterranean Shipping Company has recently been lured by a 10% discount on handling fees for box ships carrying 250 to 500 TEU and a 15% discount for over 500 TEU. Together with the planned development of a new 14km<sup>2</sup> industrial city and three new economic zones, that could see container traffic picking up through 2005.

In addition, the port authority has completed the first phase of an existing US\$650M, 20-year development plan that was begun in 1993. The approach channel's been dredged to 15m from 13m, a massive new cold storage area's been built, and quay cranes have been increased from five to 11. Phase two will see a second four-berth container terminal built as authorities bank on 3.5M TEU throughput by 2015. The tender – estimated at over \$100M – has yet to be awarded, however. *More info at [www.portzayed.gov.ae](http://www.portzayed.gov.ae)*





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## Port updates

### SALALAH

Construction of BP Marine's new bunkering terminal is on schedule for completion this summer, says main contractor Fujairah Marine Services.

Once fully operational, the facility will ramp up capacity from the current 3,000 tonnes per day to around 18,000 tonnes and will transfer storage and delivery operations to land. Direct pipelines to the four container and two dry cargo berths will be able to supply three ships simultaneously. *More info at [www.salalahport.com](http://www.salalahport.com)*

### AMSTERDAM

Logistics company Amsterdam Westpoint is to build a €7M, 20,500m<sup>2</sup> cocoa storage facility at the Amerika-Afrika harbour. And it expects to almost double the space to 40,000m<sup>2</sup> within two years. *More info at [www.portofamsterdam.com](http://www.portofamsterdam.com)*

### BRINDISI

A consortium led by Tecnimont has been commissioned by Brindisi LNG (comprising Italian electricity supplier ENEL and British Gas), to construct a €390M LNG terminal.

The facility's due to start operations by 2008 and will be capable of supplying 8Bn m<sup>3</sup> of LNG, of which 80% will be split between British Gas and ENEL with the remaining 20% sold to third parties. *More info at [www.porto.br.it](http://www.porto.br.it)*

### HAMBURG

Chinese shipping firm Cosco is prepared to invest up to €500M in a container terminal, according to group president Capt. Wei Jiafu: "Hamburg is especially important for the business as we have our European headquarters there," he told *P&H*. *More info at [www.cosco.com](http://www.cosco.com)*

### PRINCE RUPERT

Calgary-based WestPac Terminals have agreed to construct a C\$200M LNG terminal.

Westpac will build and operate the terminal, scheduled to come online by 2009, that also includes a 180,000m<sup>3</sup> storage facility. *More info at [www.rupertport.com](http://www.rupertport.com)*

# IMO heads relief efforts

As the world rushed to aid regions affected by December's Indian Ocean tsunami, the International Maritime Organisation (IMO) announced plans to help coordinate maritime infrastructure restoration

Focusing on ports, navigational aids and other key facilities, the IMO will collaborate with the IAPH (see Pg 44) and other global organizations to coordinate responses. These groups include the World Meteorological Organization, International Hydrographic Organization, International Association of Aids to Navigation and Lighthouse Authorities, United Nations Development Programme, and the Regional Programme for Marine Pollution Prevention and Management in the East Asian Seas.

The IMO *Tsunami Maritime Relief Fund* has also been established to coordinate the shipping industry's direct disaster aid for the victims.

Indonesian government estimates require US\$2.5M for new navigation equipment and US\$11M to reconstruct destroyed port infrastructure. Communications minister Hatta Radjasa stressed that the latter figure excluded costs for reconstructing roads, warehouses and other facilities which could run to an additional US\$55M.

Nine of the 17 ports in Aceh have been entirely destroyed and "business infrastructure in west and north coastal areas of Aceh has been devastated," said the minister, adding: "It will need at least two years to rebuild the facilities and resume trade."

The lack of standing port infrastructure also hampered



**People flee the giant wall of water**

timely distribution of aid to tsunami survivors. Helicopter airlifts could reach only limited numbers of people and caused massive stockpiling of aid packages at the ports of Tanjung Priok in Jakarta, Belawan in Medan and Pekan Baru in Riau. Only two 'international' ports can berth ships carrying relief material – Kuala Langsa and Blang Langsa. But Kuala Langsa has only 100m of quay with an alongside depth of 8m and though Blang Langsa has 328m of quay, its alongside depth is only 7.5m. *More info at [www.imo.org](http://www.imo.org)*



**Sealing the deal (l. to r.) Dubai Ports executive chairman Sultan Ahmed Bin Sulayem, Dubai Ports International MD Mohammed Sharaf and CSX World Terminals president and CEO Andrew Fogarty**

## Historic deal for Dubai

In a surprise victory over larger rivals, Dubai Ports International (DPI) has bought CSX World Terminals' global port assets

The overseas arm of Dubai Ports, it beat off bids from Hutchison Port Holdings and PSA International to take control of CSX's nine

terminals, which include CT3 and CT8 in Hong Kong, a nine-berth project in Korea's Busan Newport, Tianjin and Yantai in

China, plus operations in Australia, Germany, the Dominican Republic and Venezuela.

The US\$1.15Bn deal makes Dubai Ports International the world's sixth largest port operator and gives it an instant Far East portfolio, which it can use to exploit escalating container and other trade through China, Hong Kong and Korea.

DPI's other port facilities are mainly in the Middle East, the Red Sea and India.

*More info at [www.csxworldterminals.com](http://www.csxworldterminals.com)*



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## Port updates

### VIRGINIA

In a new study, the US Army Corps of Engineers has underlined the potential economic benefits of the port authority's proposed US\$1.76Bn Craney Island terminal.

The report suggests that the 242.8ha terminal would save shippers US\$345M in transportation costs and give the port sufficient capacity to handle projected cargo growth that's expected to nearly double by 2017. Before construction can begin, however, the Corps must first secure Congressional approval.

More info at [www.vaports.com](http://www.vaports.com) & [www.usace.army.mil](http://www.usace.army.mil)

### EEMSHAVEN

Groningen Seaports is to invest about €30M in the Dutch port to extend its 400m dry bulk quay by 350m, excavate a new harbour for short sea shipping and build a 10ha terminal.

More info at [www.groningen-seaports.com](http://www.groningen-seaports.com)

### JINGZHOU

Work has started on a new oil terminal at the northeast China port, which has invested RMB850M in the facility. It will be capable of handling 250,000dwt tankers and goes into operation at the end of the year.

### TERNEUZEN

Chemical intermodal service provider Bertschi has agreed to build a €4M, 20,000 TEU rail container terminal at the Dutch port to serve Dow Chemical's nearby complex. The facility is scheduled to become operational late this year and it's thought the rail shuttle will link the port with Busto, near Milan.

More info at [www.bertschi.com](http://www.bertschi.com)

### TROON

Dry docks at the Associated British Ports' facility are being reactivated in agreement with Garvel Clyde.

Hull and engine / auxiliary machinery surveying and repair are on offer amongst other services at the 122m drydock, built to accommodate tugs, coasters, ferries, supply vessels and dredgers up to 17m beam and 4.3m draft.



Freight train alongside P&O's terminal

## On track at Fremantle

Australia's MVM Rail and Henry Walker Eltin Contracting are building a A\$29M rail loop and terminal to service Fremantle's Inner Harbour

Part of a government plan to triple rail freight through the port by 2012, the North Quay Rail Terminal goes live this October. It can accommodate trains up to 400m and is adjacent to the

Patrick General Stevedoring and P & O Ports container terminals. A second phase, to follow in a few years, will allow for trains up to 600m long. More info at [www.freport.wa.gov.au](http://www.freport.wa.gov.au)

## Gas for the future

A new offshore LNG terminal is planned to help North America meet gas demands expected to exceed traditional supplies by the end of the decade

TransCanada and Shell US Gas & Power have unveiled the Broadwater Energy development – a US\$700M floating unit to be positioned 15km off the New York coast and designed to receive, store and regasify imported LNG, then send it out at about 1Bn ft<sup>3</sup> per day from 2010.

Federal and state government approval, however, is expected to take at least two to three years. More info at [www.shell.com](http://www.shell.com) & [www.broadwaterenergy.com](http://www.broadwaterenergy.com)

## Port operator wanted

Germany's planned new €900M Wilhelmshaven port is seeking an operator

A worldwide tender has been issued to operate the port, which is expected to pose a serious threat to Hamburg and Bremerhaven as a deepsea container gateway to Germany, Scandinavia and eastern Europe when completed in 2010.

Wilhelmshaven's looking for a bidder to contribute a third of the construction funds – the first phase includes four berths of up to 430m for vessels with draughts of up to 16m. More info at [www.wilhelmshaven-port.de](http://www.wilhelmshaven-port.de)



BCT finance director Adam Kaliszewski (l.) and president Tom Falknor sign for the loan

## BCT to expand

Bank Austria Creditanstalt and Bank BPH are loaning Poland's Baltic Container Terminal US\$36M

The cash will be used to acquire new quayside and yard cranes, upgrade cargo handling systems, purchase new mobile cargo handling equipment and up capacity from 350,000 TEU to 600,000 TEU per year. More info at [www.port.gdynia.pl](http://www.port.gdynia.pl)



# Panama megaport up for grabs

Shipping lines and terminal operators keen to capitalize on future Panama Canal expansion are eyeing a US\$600M port planned for the Pacific coast in 2006

Panama Maritime Authority president Carlos Raul Moreno unveiled plans for the new project and studies are being conducted to determine the best location.

Maersk Sealand, Cosco, PSA, Evergreen and P&O Ports have all expressed interest in establishing



## Zeebrugge bags APM

APM Terminals has signed a 36-year concession to develop, operate and manage a container terminal at Zeebrugge's Albert II dock south.

The facility, which is currently under development and likely to open in 2006, will initially include seven super post-Panamax gantry cranes, 900m of quay, 15m of alongside depth at all tides and over 1M TEU capacity.

More info at [www.apmterminals.com](http://www.apmterminals.com) & [www.zeebruggeport.be](http://www.zeebruggeport.be)



**SS Ancon, first ship to traverse the Panama Canal**

transshipment facilities in the country, said Moreno – and it's thought AP Møller, the largest single user of Panamanian ports, is keen to discuss the potential of developing its own transshipment facility on the Pacific coast.

Meanwhile, with over 60% of its current traffic either travelling

to or originating from the US East Coast, the Panama Canal Authority (ACP) has re-signed its all-water marketing partnerships with US port authorities in New York & New Jersey; Norfolk, Virginia; Savannah; Charleston; New Orleans; Houston; Miami and Boston.

More info at [www.pancanal.com](http://www.pancanal.com)

## With funds from China

Three of China's largest state-owned companies are to finance and build a A\$1.85Bn iron ore terminal in Western Australia

The Australian Fortescue Metals Group (FMG) has struck a deal with China Harbour Engineering Group, China Metallurgical Construction and China Rail to design and construct a heavy-haul rail line between the FMG Pilbara mine and Port Hedland. The terminal's due to come online in 2007, initially shipping 45M tonnes a year.

Meanwhile, BHP Billiton has approved the expansion of its *Rapid Growth Project 2*, which will boost the capacity of its Pilbara iron ore operations from 110M to 118M tonnes per annum during the second half of 2006 – and boost shipments through Port Hedland.

More info at [www.fmg.com.au](http://www.fmg.com.au) & [www.bhpbilliton.com](http://www.bhpbilliton.com)

## Books

### LOST ON THE OCEAN FLOOR

Whether you're a maritime historian a scuba or commercial diver or just fascinated by the sea, *Lost on the Ocean Floor* by lawyer, marine biologist and ardent underwater photographer John Fine is a bargain at US\$29.95.

He's dived and documented both famous and not so famous shipwrecks over many years

and this book is a distillation that not only captures the drama of those many sinkings, but also gives historical and scientific facts. Amply illustrated by Fine's own photographs, *Lost on the Ocean Floor* brings to life those lost galleons, liners and treasure ships and will keep you turning the pages.

More info at [www.greenhillbooks.com](http://www.greenhillbooks.com)

## Port updates

### BUSAN

Has completed a US\$1.7million upgrade for 46 cranes at Gamman, Shinsundae, Jasungdae and Singamman terminals.

The cranes can now resist wind speeds of 75m/second, from the former 50m/second. The project was ordered after the 2003 typhoon *Maemi* damaged six cranes at Singamman and five at Jasungdae.

More info at [www.portbusan.or.kr](http://www.portbusan.or.kr)

### HOUSTON

Together with the Legacy Land Trust, the port authority has signed the *Banana Bend Conservation Easement*.

Part of the authority's commitment to fulfil requirements of the federal permit granted for the Bayport Container and Cruise Terminal project, Banana Bend is a 428-acre tract of land that will provide a stop-over and wintering area for migratory waterfowl, shorebirds and songbirds. More info at [www.poha.com](http://www.poha.com)

### RADÈS

The Tunisian Office of Shipping and Ports (OMMP) has decided to extend the country's main container and ro-ro port's capacity.

Run by the state-owned port operating company STAM, Radès, handled 2.6M tons in 2003 and with container traffic rising at an average 14% per annum, OMMP has appointed HPC Hamburg Port Consulting to implement the concession process.

More info via email from HPC's Susanne Milberg s.milberg@hpc-hamburg.de

### LONG BEACH

With environmental issues at the top of the agenda, the port has approved the Green Port Policy in February containing five guiding principles:

- (i). to protect the local community from the port's harmful impacts
- (ii). to apply the best available technology to minimize impacts
- (iii). to promote sustainability in terminal design and operations
- (iv). to make the port a leader in environmental stewardship, and
- (v). to educate the community about port development and environmental programmes.

More info at [www.polb.com](http://www.polb.com)



## Bought & sold

### XIAMEN'S LARGEST

Xiamen International Container Terminals has bought two super post-Panamax quay cranes with a lifting height of 38m, outreach of 56m and a lifting capacity of 45 tonnes.

Capable of serving the world's latest generation of mega container vessels, they're also the largest quay cranes in the Port of Xiamen.

### NEW MOVE

Norway's Multiraship has ordered a new 30m *Carousel* tug from Novatug for delivery in 2006.

The vessel features a radically different design concept: 'by attaching the towing wire to a ring that rotates freely around the superstructure, cornering and braking are greatly increased,' Novatug claims.

### ANTWERP EXPANDS

Antwerp's MSC Home Terminal, a joint venture between Mediterranean Shipping Company and PSA subsidiary Hesse-Noord Natie, has ordered five more Kalmar super post-Panamax ship-to-shore cranes to complement the ten it ordered last year. The cranes are due for delivery in 2006.

### PORT PROTECTION

Trelleborg has upgraded fender systems at Malayan Flour Mills' Lumut berth.

The new *Super Cone* system 'increases the berth's energy absorption so it can handle vessels of up to 34,000dwt without the structure overloading.'

The retrofit involved a series of large, universal columns with special adapter brackets that utilised existing anchor points to avoid any changes or modifications to the structure.

### SHIPS TO SPAIN

VT Halmatic has delivered the Nelson 40 pilot boats *Mandarache*, *Serrapio* and *Progreso* to Spain's Cartagena, Gijon and Sagunto pilotage authorities respectively.

Each vessel is an optimised version of the pilot boat originally introduced in the 1960s and powered by Volvo Penta TAMD 74A marine diesel engines, giving a 24-knot top speed.

# TT Club storm warning



What a storm can do to a container

## How to avoid equipment damage and operational downtime through major storms

After another notable storm season in the North Atlantic and North Pacific oceans, transport industry mutual insurers the TT Club has drawn on its 40-year experience (most recently with storms such as typhoon *Maemi* in Korea and hurricanes *Frances* and *Jeanne* in the Bahamas) to offer guidelines intended to minimise damage and downtime.

Even in a category three or four hurricane, the survivability rates for port equipment and cargo

can be significantly improved by proper adherence to some relatively simple loss prevention procedures, says the Club.

"Typhoon *Maemi*, which hit South Korea and particularly the port of Busan at the end of September 2003, highlighted the vulnerability of gantry cranes, straddle carriers and other quayside equipment to wind speeds that can exceed 140mph," says senior claims manager Colin Fordham.

"But there are various defensive measures that have proved effective and that form the basis of TT Club's recommendations. These include strict adherence to comprehensive 'tie-down' procedures, protectively block-parking straddle carriers so they support each other and ensuring that all gantry booms are secured in the upright position."

Ports should also take measures to avoid the potentially costly risks of business interruption. Citing the example of hurricanes *Frances* and *Jeanne* in the Bahamas, which provoked a claim on the TT Club of US\$11M, Colin points out that in contrast to *Maemi*'s trail of destruction, gantry cranes in the Bahamas and Caribbean container terminals remained upright.

Nevertheless, he added that "damage from flying debris and water ingress was severe and recovery times were hampered by a loss of power and communications. Hence, the Club advises operators to maintain adequate stocks of spares, put in place contingency arrangements for secondary power supplies and ensure crane control rooms are adequately protected against water damage. It's also preferable to do what you can to minimise the height of container stacks, especially empties, in the yard area," he concluded. *More info at [www.ttclub.com](http://www.ttclub.com)*

## Naha goes private

Following in the footsteps of terminals at Mizushima and Hakata, Naha has become the third Japanese port to agree terms for private management of public container berths

The Okinawan port has signed a 10-year management agreement with Naha International Container Terminal Inc. (NICTI), a Filipino-Japanese joint venture that's 60% owned by Manila-based International Container Terminal Services Inc. and 40% by local firms.

The management agreement covers the port's number 9 and yet-to-be-completed

number 10 terminals, each with a single berth and totaling 21 hectares and 600m of quay.

"Now that the agreement's signed, construction work on Terminal 10 can be restarted," commented Naha Port Authority's executive vice president Toshiro Tsutsumi, adding that operations would commence in January 2006 under NICTI management. *More info at [www.icts.com](http://www.icts.com)*



# Cavotec in action.



Does the ability to moor any type of ship within seconds, without pollution and in complete safety sound unlikely? This is however exactly what the MoorMaster 400, developed by Mooring Systems Ltd. does everyday at Patrick's Shipping Company in Melbourne, Australia.

## No ropes required.

This fully automated mooring unit takes away all of the problems related to the traditional way of mooring with ropes. It allows a ship to moor within 12 seconds with just a touch of a button. Detachment is instantaneous.

Mooring Systems Ltd. is specialised in the design and development of revolutionary systems for automatically mooring any type of ship. Since March 2004, Mooring Systems Limited has entered into an alliance with the Cavotec Group granting them the licence for the manufacture, the marketing and the service of their products.

The Cavotec Group consists of seven manufacturing "Centres of Excellence" located in Canada, France, Germany, Italy, Norway and Sweden and by five local manufacturing units in Australia, China, Germany, Sweden and U.S.A. For the distribution of products and support to its customers Cavotec has 22 strategically located sales and services companies.



Connecting mobile equipment

For further information, please email us at [info@cavotec.com](mailto:info@cavotec.com) or visit our website [www.cavotec.com](http://www.cavotec.com)



## Dredging

### PORT AND BEACH BENEFITS

The US Army Corps of Engineers has completed a US\$2.2M campaign to improve access and attract bigger vessels to the *Port of San Diego* by deepening the main shipping channel to 42ft. The 300,000 cubic yards of sand removed were used to nourish nearby Imperial Beach.

### BUSAN DIGS DEEPER

The Korea Shipowners' Association has asked the Ministry of Maritime Affairs and Fisheries to deepen berths at *Busan New Port* to 17m so it can accommodate the new breed of 12,000 TEU container ships expected to come on stream by 2010. Busan's currently planning to launch six new 15m-deep container berths before January 2007, then three more 16m-deep berths by 2009, but they won't be deep enough to cope with the planned mega box ships.

### PLOUGHING ON

A breakthrough compromise could see the UK's environmentally sensitive *Dee Estuary* dredged at last. The estuary houses the *Port of Mostyn's* inner access channel and maintenance dredging is vital for the port to handle wingsets for the Airbus A380 super jumbo airliner being built at nearby Broughton for onward shipment to Toulouse. After months of negotiations, the port finally won permission from the Environment Agency Wales to test 'ploughing' as a means of clearing shallow areas in the channel. The trials were a success, says the port, which is hopeful it can now modify its dredging application to make it more acceptable to environmentalists.

### WHERE'S THE CASH?

The *Port of Siuslaw* has only received US\$125,000 of the US\$508,000 needed to dredge the Siuslaw River – but that's better than nothing, says port manager Tom Kartrude. "It's not enough to sustain the river's average seasonal dredging needs over the years, but any money's better than nothing after President Bush proposed zero funding for most 'low commercial use' ports," he said.



Dragaport's *Boa Vista I* during its last visit to Santos

## Santos go-ahead

It's taken over two years of judicial disputes and wrangles over cash, but contracts have finally been awarded to dredge Brazil's Port of Santos

José Goldemberg, Sao Paulo's environment secretary, gave the go-ahead, enabling contractors Dragaport and Enterpa to begin deepening the navigation channel to the official 14m. Some areas had reportedly silted up to leave only 12m to 12.5m.

Dredging's in two tranches, Enterpa taking the BRL22M lion's share while Dragaport's BRL11.2M contract will see it mobilize the 5,600m<sup>3</sup> dredger TSHD *Boa Vista I* to complete a 12-month deepening campaign.

More info at [www.portodesantos.com](http://www.portodesantos.com)

## Coast of Death

That's what they call the northwestern Spanish coast off La Coruña – but it hasn't put off construction company Actividades de Construcción y Servicios (ACS)

The firm heads a consortium that's won a €429M concession to begin construction of a controversial new exterior port.

ACS-owned Dragados and Copasa y Drace, together with Obrascón Huarte Lain Group subsidiary Sato, will build the breakwater for the new port which, when finished, will replace La Coruña's existing port and house vast facilities for the dry bulk trade and up to five berths for tankers.

More info at [www.puertocoruna.com](http://www.puertocoruna.com)

## Everything's bigger in Texas

Port Freeport has the world's first offshore liquefied natural gas (LNG) receiving terminal

The Gulf of Mexico Energy Bridge Deepwater Port was coordinated by Excelerate Energy in conjunction with El Paso and assembled using eight huge suction pile anchors, each weighing as much as 93 tons, a 200-ton discharge buoy and super heavy-duty chains,



Suction pile anchors

wires, umbilicals and flexible flow lines. The terminal will be used to channel about 500M ft<sup>3</sup> of gas per

day from offshore LNG tankers to the Texas mainland via a subsea pipeline. More info at [www.portfreeport.com](http://www.portfreeport.com)

## Get freight moving faster

Automation speeds traffic flow at Thamesport

Up to 700 lorries a day drive in and out of the UK's Thamesport in Kent and now a new pager-based system, developed by automation manager Ian Marsden in conjunction with Call-Systems Technology (CST), is speeding up the processing.

"Drivers used to be informed when their loads were ready to collect by a series of light display boards," said CST's Ashley Sheppard. "But the system had problems: it meant the driver had to stay at a point where he could see the boards and in winter months, visibility didn't always



**Over 700 lorries a day call at Thamesport**

allow him to see the boards clearly."

Mr Marsden came up with the idea of a chip that would adapt a paging system to the port's requirements. And having decided that CST's existing *DriverCall* pager was appropriate for the job, that's exactly what he did.

On arrival at the gatehouse, drivers are handed pagers that are activated when the load's ready for collection. At the entrance barrier, the pager is verified by a reader while a second reader at the loading bay allows a crane to automatically go to where the appropriate container is, picks it up and deliver it to the vehicle.

Finally, on leaving, the driver drops the pager into a chute at the gatehouse and once the system has read the information in it and is satisfied that everything's OK, the gate opens to allow him to leave. *More info at [www.call-systems.com](http://www.call-systems.com)*



**Sihanoukville at present**

## Banking on growth

The Japan Bank for International Co-operation has agreed to loan Cambodia ¥4,313Bn for its Sihanoukville Port Expansion Project, a welcome boon following the country's recent accession to the World Trade Organization

The loan will be used to develop and expand the existing container berth and install cargo handling machinery to help cope with demand. Construction is scheduled to begin in March 2006.

Private investments in infrastructure are vital if Cambodia's to sustain stable economic growth. The country's per capita GDP was just US\$314 in 2003, compared with the US\$1,278 ASEAN average for the same year.

*More info at [www.pas.gov.kh](http://www.pas.gov.kh) & [www.jbic.go.jp](http://www.jbic.go.jp)*

## Bubian gets a billion

Kuwait's given the green light to a US\$1.2Bn state-of-the-art container port on Bubiyan island

The facility's construction forms part of a major plan to develop Bubiyan into a free trade zone, storage area and oil depot to take advantage of the anticipated increase in container shipping following Saddam Hussein's fall.

Construction is scheduled to begin during the first half of this year and the port will become operational in stages,

starting in early 2008 with 1.3M TEU capacity. Completion is scheduled for 2016.

The government of Kuwait will provide IQD305M of associated infrastructure costs, leaving the yet-to-be-appointed port operator to contribute the remaining IQD40M.

*More info at [www.kuwait-info.org](http://www.kuwait-info.org)*

## In passing

### BACK TOGETHER

The *Port of Auckland's* moved a 615-tonne Paceco container crane from Axis Fergusson container terminal to join its 'twin' at Axis Bledisloe's western container berth.

Two specially designed 180-wheeled, 500hp truck and tractor units completed the 2.1km move, which is intended to speed turnarounds.

### INVESTMENT OPPORTUNITY

Brunei Economic Development Board (BEDB) and UK consultancy Halcrow are seeking investments for the US\$1.7Bn deep water port on *Pulau Muara Besar*.

Global shipping lines and port operators are being targeted to run the hub and container facility, the first phase of which will cost US\$400m and involve the construction of 1,300m of quay. Over the next 10 years, another 3,700m of quay will be added in line with expected trade growth.

### AWARD WINNER

The *Port of Long Beach's* recently completed US\$74M Pier T wharf extension has received the Consulting Engineers and Land Surveyors of California's *Golden State Award*. Manson Construction and Connolly-Pacific picked up the honour for the 1,300ft extension, which took 18 months to build and dredge, and serves Total Terminals International's 375-acre container terminal.

### FIND IT FASTER

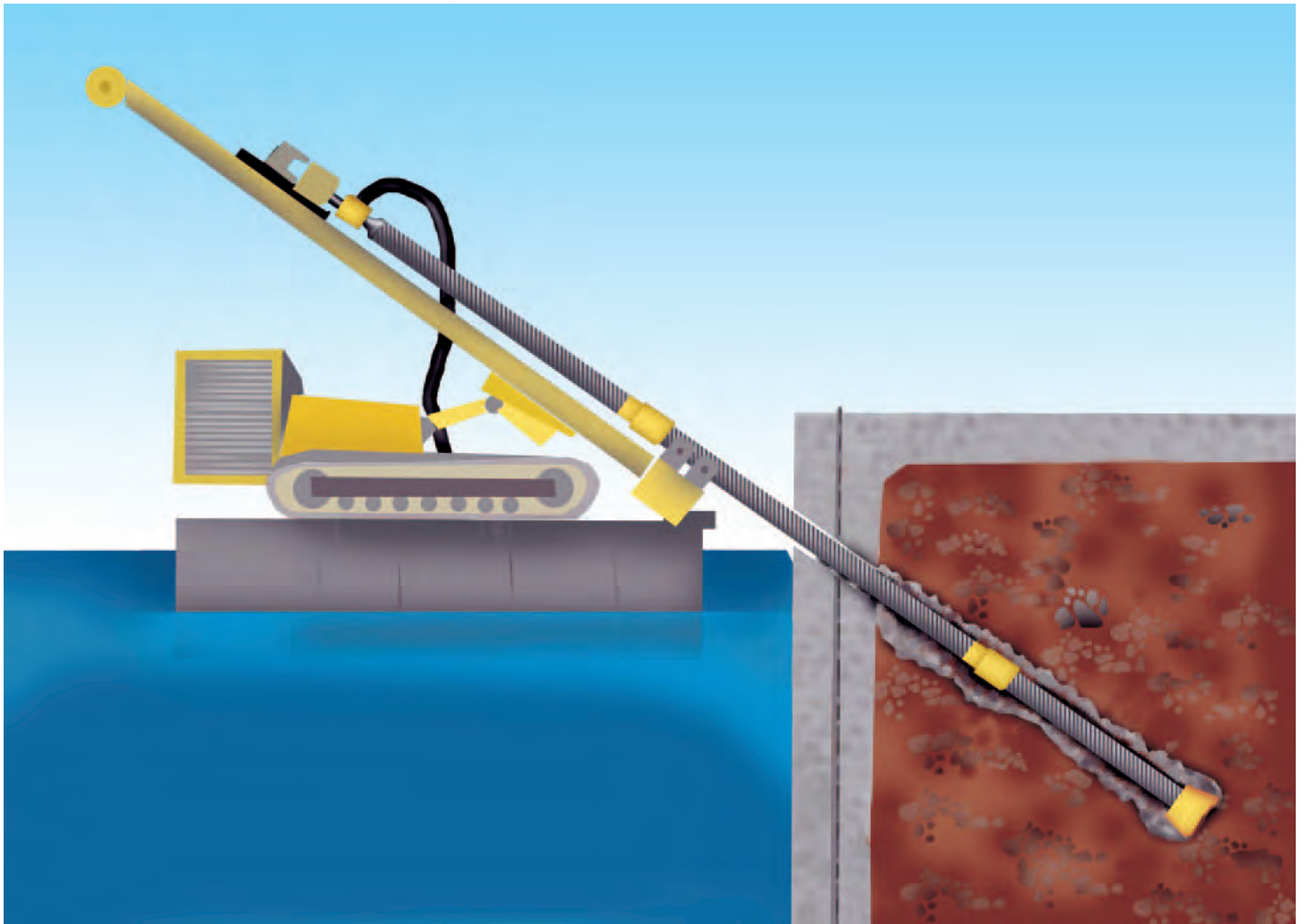
Holland Marine Equipment Association (HME) has revamped its website to enable easier HME member tracing and faster access. See for yourself at [www.hme.nl](http://www.hme.nl)

### MOVING BOXES

Chinese rail vice minister Wang Zhaocheng has agreed to build 18 container distribution centres at major coastal and inland cities, linked by a 16,000km dedicated cargo rail system incorporating double-decker container trains.

Construction of the first two-year RMB500M centre in Kunming, Yunnan province, began last July, and will enable it to handle 10.6M TEU by 2015.





## Underpinning the future

*P&H* investigates the innovative use of commercial mining techniques to secure Riga's port from the ravages of the Baltic

Originally founded in the 13th century on a loosely-packed, silty plain, Latvia's capital city of Riga is sinking and subsidence has become a major issue for many of the city's historic buildings.

Thankfully, a number of rescue plans are underway, using underpinning skills and techniques originally developed for the commercial mining world to save not just these buildings, but also to restore and stabilise more modern office blocks and hotels facing the same fate. Because of these missions, the city has built up a wealth of technical experience in this complex field, which it is putting to good use in the expansion of its port.

Even before Latvia's accession to the European Union in May 2004, the country was blossoming industrially and economically. As a clear indicator of this health, the port of Riga handled over 22M tons of coal in 2004,

over 11% more than the year before. This growth, however, was reaching its limits as the size of vessels visiting the port were in turn constrained by the depth and size of the berths, so the decision was made to enlarge the port using lessons learned in the city.

Plans for the expansion of the port rest on deepening it first, but initial studies into the stability and structure of the port's docksides indicated that, like the buildings in the capital itself, the dock walls were suffering from subsidence and would be very likely to collapse entirely if the port was simply dredged with no preparation.

This realisation required the existing sheet pilings to be reinforced and anchored to the bedrock beyond the softer sands, thereby securing the dock wall ahead of the dredging work. The mining principle guiding this is fairly simple, if the technique is not.

It is being handled by Latvian marine construction and civil engineering firm BMGS, using equipment from Atlas Copco and techniques culled from commercial mining to underpin buildings ashore. In particular, this equipment includes MAI R38 self-drilling anchors and MAI grout pumps to shore up the docksides and anchor

**Schematic diagram of Riga's specialised movable drilling rig, fitted to a floating platform. The design of the anchors enables them to be used with standard construction drilling and mining equipment**

**Engineers work on a movable pontoon, driving MAI self-drilling anchors through the pilings alongside the Port of Riga's coal terminal**

them through the surface sand to firm bedrock beyond.

These Austrian-designed anchors were initially used to anchor tunnel roofs and secure subterranean mining progress, but have proven perfect for Latvia's purposes too. They consist of an externally threaded, hollow steel bar, which can simultaneously flush solubles or pump grout.

There are also a number of other key features that make the system ideal for the Latvian underpinning project. With its sacrificial drill bit head, an anchor can be quickly drilled in and set in place without subsequently weakening the borehole by having to remove the drill. In addition, the manufacturer claims that the external thread ensures a solid bond whatever the surroundings. All of this means that the anchor can be rapidly placed, inserted and grouted in one simple operation.

"We chose this equipment because it suits this project perfectly," Valery Zagulin, geotechnical manager at BMGS in Riga explained. "To start with, it's fast to install and that's important. A rig and a crew cost a lot of money per day, so speed helps us keep costs down and improves our total economy."

In addition, speed and ease of use are particularly important for the programme because these anchoring operations have to be carried out around continuing coal-handling operations at the port to minimise disruptions. In effect, this means that work can only be carried out for two of the port's five working days.

With time so restricted, BMGS has devised a novel solution enabling all the drilling and underpinning equipment to be fitted onto a purpose-built floating platform that can be towed out of the way when a vessel needs to come alongside for loading and unloading operations.

The platform's outfitted with a land-based tractor drill that bores a 1.5 to 2m hole in the steel sheet pilings of the dock wall, which forms the 'collar' for subsequent drilling of a 47m long channel into which threaded bars are grouted.

These holes are drilled down at 40° angles into the sandstone bedrock and grout is continuously pumped down each of them at between 40 and 60 bar pressure. Each 47m reinforcing section is made up of 16 MAI anchor rods and 15 couplings, joined with brass washers at each coupling to provide expansion room to resist the pressure of the grout.

This takes seven days to dry out fully and cement the bars into place, but once it's solid, a restraining plate and nut are screwed onto the exposed end, thereby pinning the dock wall down, affording a restraining force stressed at up to 90 tons.

Together, the anchors will secure the port walls sufficiently to allow the depth of the dock to be safely deepened by over 33% to 13.5m. A single, metre-thick dressing layer of concrete is then pumped over the anchors.

This process constitutes the first stage of the enlargement work and required 120 individual anchors to be installed above the waterline at 3m intervals. Sheet piling operations that will finalise the process were taking place as *P&H* was going to press, forming the new dock wall.

## Deeper

Riga's planned expansion is more ambitious still and beyond this first stage, port managers aim to dredge the dock to 15m later this year, requiring additional securing work. Using the same techniques, BMGS will traverse the line of the new dock wall, inserting new anchors equidistant between the stage one anchors.

In total, the dock wall of Riga's coal-handling terminal will have 240 anchors spaced at 1.5m apart. This work should ensure that the dock can continue operations with a renewed intensity as bigger vessels come alongside to receive their train loads of coal from Latvian mines for some time to come.

With a life-expectancy of 40 years, however, the process is not a permanent fix and another innovative solution will eventually need to be unearthed. **PH**







# Going with the flow

Georgia Ports Authority (GPA) maintains port usability and an ecological balance with a new silt suspension system

Like all riverine ports and harbours, those controlled by the GPA in the USA suffer from their geographical position as natural build-up areas for silt washed down by the rivers that feed them.

Traditionally, these areas require periodic dredging to maintain their berthing depths, but this is costly and disruptive by nature. The GPA was amongst the first to trial and install an innovative water 'blower' from Scour Systems (now trading as SedCon Technologies) at the port of Savannah to address this problem.

"Berths suffer sedimentation problems in Savannah due to the slowing of water velocity in certain areas," explained Natalie Schanze, project manager for Lockwood Greene, with overall responsibility for the new system.

Relatively simple in concept, the new installation is a silt suspension system resembling a very large — 42in diameter — garden hosepipe that passes down the side of a berth and attaches to the pilings on the riverbed. The total footprint of an individual unit is 5.5ft x 9ft x 19ft.

A hydraulic motor-driven impeller draws in water and forces it out of a waterjet, just above the mudbed. This ensures that a constant flow of water is maintained,

dispersing any settling silt and keeping it suspended in the water to be deposited further downstream or out into the Atlantic. As the system adds no new sediment to the water column and simply maintains a given depth, the manufacturer insists that the dredging burden is not simply shifted to other areas.

"There has been no evidence of any increased shoaling adjacent to our existing installations" said SedCon. The silt suspension system installed at the Savannah terminal



**Container vessel  
alongside in  
Savannah.  
The port's silt  
suspension system  
enables continuous  
operations at the  
terminal, without  
interruptions  
for dredging**

has eight 'Turbo Scour' units powered by a single 75hp pump. This ensures continuous water flow away from the base of the berth, to maintain a steady depth of over 40ft in an area where the shoaling rate before the installation was around 12ft a year. According to the manufacturer, the area outside the protected zone — 750ft wide and over 120ft from the dock — experienced 10ft of shoaling in the first four months of operation.

Control of the system is managed by a computer that's set up to synchronise with the local waterflow conditions, rotating the waterjet 180° to ensure the silt suspension is uniform and no settling occurs.

Simple as the system is in concept, it nevertheless requires periodic maintenance and the individual Turbo Scour units can be raised out of the water for this, again minimizing disruption to operations at the terminal. They can also be moved up and down the side of the dock with the tide to ensure an even coverage.

Richard Cox, GPA's general manager of maintenance, told P&H that: "the new system alleviates the need to perform regular maintenance dredging because it never allows the silt to settle out, saving the port time and money."

In fact, the economic benefits are substantial.

Savannah typically spent an average of US\$555,000 on hydraulic dredging every year — "since this is no longer necessary," GPA's ship operations manager Chris Rice stated, "these cost savings mean the units will ultimately pay for themselves in seven years."

### **'Green' credentials**

The suspension system has been the subject of extensive utility and environmental impact trials, which returned positive results and secured certification from the US Army Corps of Engineers. Including field testing, the trials covered extensive research and calculations to ensure that the system could straddle the delicate balance between economic viability and environmental sensitivity.

Ms. Schanze continued: "GPA evaluated potential impacts to water quality in three categories: chemical, physical and biological. The studies showed a net reduction in all categories, as compared to dredged material maintenance alternatives.

"The difference with this system is that it doesn't dredge at all. It just keeps the water moving and keeps

sediment from falling out of the water column."

Additionally, the system has been judged safe for operations with protected species in the area. As it is preventative rather than destructive, it causes far less environmental impact than traditional systems, which can cause massive disruption to the local eco-system with buckets and grabs plunging through the water column to dig up the riverbed.

It doesn't release any sediment turbidity into the water column either, thereby ensuring a stable environment is maintained not just for fish, but also benthic organisms.

All of this sensitivity has led to the system not only receiving its operating permit from the Army Corps of Engineers, but also support and approval from other major 'permitting' organisations, including the Environmental Protection Agency, the Fish and Wildlife Service, the National Marine Fisheries Service and Georgia's Department of Natural Resources.

"We haven't seen any fish material on the unit and soundings are showing that this is an environmentally-friendly system," said Mr. Cox. "It's a more natural, subtle system because we're not bringing in machines that could harm the wildlife."

### **Wider protection**

Could a Savannah-style installation work for other ports with similar shoaling problems?

Port managers have no doubt — in fact, no less than three other ports on the USA's eastern seaboard have installed similar silt suspension systems. The first was put in place at Wilmington in North Carolina, another was installed down the river from Savannah at the US Navy's King's Bay submarine base in Georgia and the third was fitted at one of the terminals in Linden, New Jersey in 2002.

According to SedCon, the Linden installation has had a central role in the port's expansion and modernization plans. Before the units were fitted, the CITGO berth at the port was so badly affected by shoaling that vessels had to anchor off-site and lighter their cargos by barge.

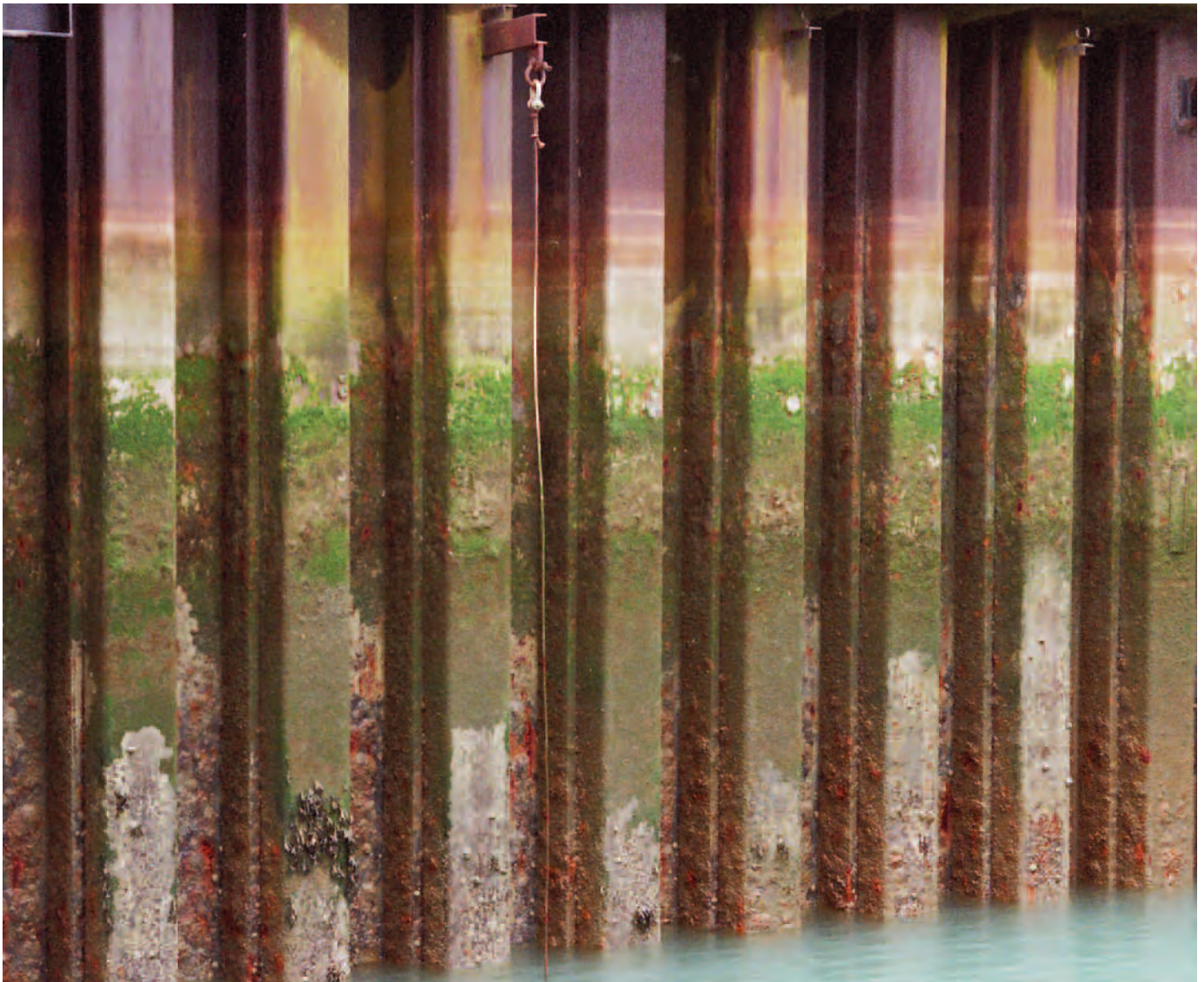
The seven-unit system installed at King's Bay is currently undergoing an upgrade, with a new cathodic protection system to meet the Navy's stringent anti-corrosion policies. This is undergoing testing throughout 2005 and is scheduled to be declared operational in early 2006. **PH**

**The waterjet  
system is installed  
at Savannah**

**Computer-  
generated  
image of the  
waterjet concept  
in operation**







# Fighting the rot

*P&H* explores Dover harbour's leading efforts to manage the growing problem of Accelerated Low Water Corrosion (ALWC)

**Corrosion damage to one of Dover's steel Larsen pile retaining walls**

Every 11 minutes — day and night — a ferry, cargo-vessel or cruise liner enters or leaves Dover harbour on the UK's south coast. Every year its six ferry berths (with a further two under construction) serve 2.6M cars and buses and 1.8M road haulage vehicles, making it one of the busiest ports in the world.

Busy as it is, the port can ill afford to have its piers out of action for extended periods checking for rust and damage to its pilings. But large areas of the harbour, including several of the ferry berths, are constructed on reclaimed land, bounded by retaining walls made from interlocking steel Larsen piles set into the seabed.

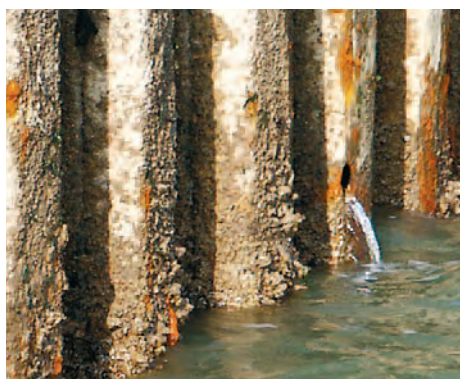
And in the past few years a corrosive phenomenon called Accelerated Low Water Corrosion (ALWC) has hit these marine structures hard.

Caused by bacterial deposits, ALWC occurs at a faster rate than the general corrosion of steel in sea water. To combat this, Dover harbour's manager have investigated new ways to monitor and ensure that sheet pile corrosion is under control. Other ports across the world suffering from this phenomenon can learn from their experience.

## Fighting nature

The Larsen piles at Dover harbour are designed to last for up to 25 years, well beyond Dover's 20-year replacement schedule. They are vulnerable, however, to the natural atmospheric corrosion that takes place above the waterline due to oxidation (rusting) of the steel, and underwater by corrosion (the natural electrochemical reaction that occurs between different anodic and cathodic sites on the sheet pile surface, with the seawater acting as the electrolyte).

During general maintenance, engineers check the



#### **Diving team surveying the wall**

#### **Note the water pouring through a rust hole in the pilings at low tide**

#### **Aerial view of Dover harbour – a sizeable problem**

rates of corrosion and integrity of these structures within the harbour by measuring the thickness of the steel at various points above and below the waterline. This time-consuming process is undertaken from a survey launch or by sending down diving survey teams and can take several days.

The highest corrosion rate is normally expected to occur at the top of the piles in the 'splashzone,' or tidal zone, where the air and seaspray exacerbate the rusting. Recently however, engineers have noted greater than expected corrosion at the foot of the piles close to the seabed — the very point that bears the greatest load.

This was recognised as ALWC, caused by bacterial deposits that gather in soft, orange clusters on the steelwork, usually around half-a-metre above the mud.

The complex bacterial action that underlies ALWC produces chemicals that can cause rapid pitting of the steel. This can be controlled in a similar manner to general sea water corrosion, with the application of cathodic protection (CP) using either a sacrificial or impressed current CP system.

A sacrificial system consists of anodes — usually made of aluminium or zinc alloys with a mild steel insert — welded to the steel, which lower the pile-to-sea water electrochemical potential to a value at which ALWC does not occur.

Dover harbour engineer Ian Gardner told *P&H* that "having identified the problem from earlier thickness studies, we knew that the bases of some piles needed protection and that anodes would fully protect the piles from both ALWC and general corrosion. What we needed, however, was a quick, safe and accurate way to check that the anodes were continuing to work effectively.

"Regular tests with diving teams", he continued, "were out of the question due to the sheer expense and limited window of opportunity. Surveys from a launch can only be carried out when the tide is around half-a-metre, but this extra-low spring tide may only occur for an hour or two, once or twice a year — in some years not at all. We needed a faster, easier but just as effective solution."

In search of this, Dover harbour sought the expertise of corrosion-monitoring equipment

manufacturer, Buckleys UVRAL, which recommended its Marine Survey Kit.

Originally developed to monitor the hull-to-sea water potential of yachts, the kit is based on a 140mm-long perforated PVC probe containing a silver/silver and chloride/sea water (Ag/Ag & Cl/sea water) electrode, a length of underwater cable and a multimeter to read the voltages generated.

When immersed in sea water, the probe's Ag/Ag & Cl/sea water electrode measures the pile-to-sea water potential and thereby, the operational status of the sacrificial anodes. At Dover, these electrodes are lowered into the water by hand in a simple PVC cage at pre-determined points.

"We were impressed by the ease-of-use of Buckleys' solution," Mr Gardner added, "which complements our existing testing systems."

### **Monitoring protection**

Dover's engineers are now fitting cathodic protection systems made of aluminium alloy sacrificial anodes, bolted or welded to the steel shuttering around their piers. They are also creating a network of measurement points every few metres that can be accessed from the top of the piers. A reading from the anodes can be made in seconds by connecting the electrode and a multimeter to the measurement point.

The electrodes measure the slightest change in the pile-to-sea water potential, which can reveal a range of problems. Ideal pile-to-seawater potential required to ensure effective levels of cathodic protection and provide immunity from ALWC is around -0.9V to -1.1V. If the measurements are even a fraction below or above these parameters, it indicates that the anodes may need replacing or other action should be taken.

For example, a reading of -0.6V from the electrode may suggest that the anode has perhaps been dislodged by a docking vessel or tidal action and the pile is at risk from ALWC. If a reading is too high, then it's possible there may be stray current interference from an impressed current CP system, or other DC current source, which may affect the paintwork on the structure and necessitate further action.

With the new monitoring system, a complete pier can be surveyed by two engineers in under two hours, a radical improvement over the several-day, five-man diver surveys. Additionally, and unlike with the diver surveys, the piers can be monitored and still remain open to ferries.

The introduction of the system has brought a range of wider advantages. Mr Gardner explained: "with the kit, we are now well-equipped to monitor anode voltages 'on spec' at greatly reduced cost, while the whole process is less weather dependant. Plus, if an anode has been dislodged it's immediately obvious.

"Every UK port needs to address corrosion", he concluded, "and with ALWC a growing menace it's essential they adopt far more responsive measures to the traditional options. This solution is a cost-effective, efficient and rapid method of checking the effectiveness of protective anodes and thus maintaining our marine structures' integrity." **PH**



# Balanced port planning

Dr Lindsay Murray sketches out the United Nations Environment Programme's guidance principles on port and harbour development

**A**cross the world, ports and harbours are expanding and developing at unprecedented rates and environmental awareness concerns have never been higher. As such, the United Nations Environment Programme (UNEP) recently published several key principles of port and harbour development under its Global Programme of Action (GPA) remit.

Towards this, the IAPH joined a number of organisations — including the Central Dredging Association (CEDA) and the International Association of Dredging Companies (IADC) — to participate in a consultative workshop last year to discuss these principles and subsequently help refine them. The document setting out key principles has recently been published as a joint product of these organisations.

A crucial element of the planning process was UNEP's tacit recognition of the importance of ports and harbours in uniting the world's economies. Not only as junctions for cargoes, but also to help industries develop their business and thereby aid development of the local and global economy. Half of the world's population lives in coastal zones and ports and harbours are essential for the economic and social well-being of these and wider communities.

These coastal communities also depend on the diverse and valuable ecosystems — such as shallow seabeds, estuarine waters, mudflats and coastal wetlands — in which ports and harbours are developed. Indeed some one billion people world-wide are dependant on fish as their primary source of protein.

The challenge of sustainable development is thus to ensure the protection of these ecosystems during the development and operation of the essential ports and harbours.

A consensus is emerging that encourages the adoption of holistic good management practices, covering the planning, design and operational phases of port and harbour development. This should help achieve the optimal balance of socio-economic activity with its impact on the morphological and ecological features of the area.

UNEP's subsequent key principles that arose out of last year's meetings enshrine this. They aim to enhance understanding and recognition of actions that minimise the impact of port and harbour development on the coastal zone within an economically and socially sound structure.

Though the principles are generic — and therefore

global in application — they aren't intended to replace approaches designed for a specific regional setting. Additionally, the UNEP's GPA regards this guidance principles publication as a 'living document' and the key points will develop further as they become widely used and refined.

As one of the key means of expanding and developing ports and harbours, dredging was a central feature of the GPA's document. It made a number of important statements regarding this and the crucial points are quoted here, as follows.

## **Dredging is integral to port and harbour development**

The GPA's principles recognise that dredging is often an integral part of port and harbour development. As such, it should be addressed at an early stage of planning to derive maximum environmental and socio-economic benefits and limit any potential negative effects.

However, CEDA contends that all too often, those knowledgeable about dredging practice are not consulted at a sufficiently early stage in the planning process and their valuable input is missed.

Additionally, in the longer term, it was recognised that port management operations may lead to greater impact on the environment than is initially expected or planned for.

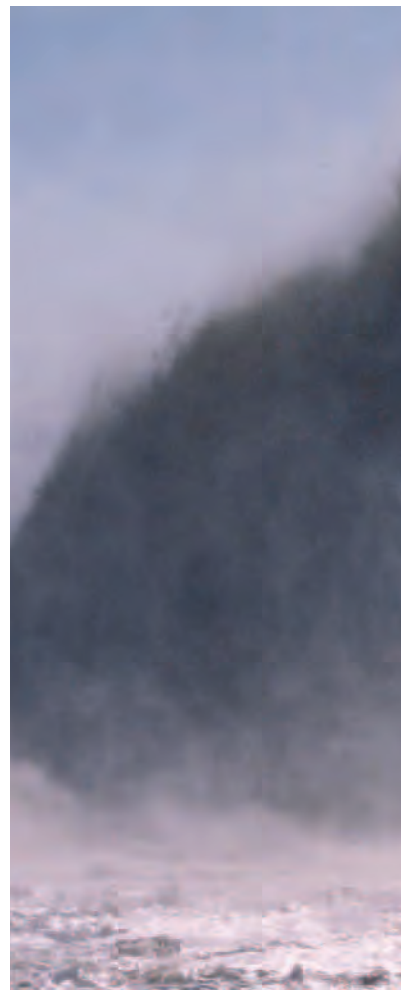
In this context, maintenance dredging must also be considered at the planning stage, when there may be opportunities to minimise the requirement for subsequent maintenance dredging.

## **Use best management practices and make use of internationally recognised guidance documents**

As the principle above clearly states, the GPA promotes the use of the best or most appropriate technology available and encourages the adoption of 'best management practices' and internationally recognised guidelines.

Guides such as those produced by CEDA and the IADC on the Environmental Aspects of Dredging ([www.dredging.org](http://www.dredging.org)), and those available from the International Navigation Association (PIANC - [www.pianc-aipcn.org](http://www.pianc-aipcn.org)) are invaluable examples of such guidance.

UNEP raised concerns over the management of dredged material too, how it should be disposed of, where and when. Though in recognition of the numerous





**Trailing suction  
hopper dredger  
Seaway using  
the 'rainbowing'  
technique for  
beach protection  
and regeneration**

and vastly differing means of dredging available, the guidance stopped short of being prescriptive. Instead, it advocates the best available environmentally sound options for management of dredged material be sought.

Where possible, the organisation also endorsed promotion of the 'beneficial use' of dredged material — such as for beach protection and regeneration — which is becoming more common across the world.

In light of these advances, PIANC's Environmental Committee currently has a working group examining global examples of the beneficial use of dredged material. This will inform production of a good practice guide to update its earlier guidance work, *PIANC Working Group 19, Beneficial Use of Dredged material; A Practical Guide*.

### **Involve Stakeholders**

Dialogues and the active involvement of all relevant stakeholders is absolutely crucial to the development of any port if it's to achieve maximum socio-economic and environmental benefits.

While this statement is broadly true of many development situations, it is of particular importance in port and harbour developments where the livelihoods of local communities may depend on both the development itself and the fragile aquatic ecosystem in which the development takes place.

It is therefore vital to solicit as much involvement from all stakeholders as possible.

### **Monitor operations**

If developments are to credibly follow these guidelines, port and harbour authorities must endeavour to regularly monitor the situation.

Not only must operations carried out by contractors during the construction phase be continuously monitored and assessed, but monitoring must continue to cover port and vessel users in the operations phase, if the desired environmental protection is to be achieved.

Of course, this applies to *all* aspects of the development, not only those involving dredging.

The principles then, can be seen as the general application of common sense and general good management, which in time should evolve towards the steady and sustainable developments of ports and harbours in tune with their natural environment.

For further information, you are encouraged to write to the UNEP GPA programme officer, Dr Anjan Datta, [a.datta@unep.nl](mailto:a.datta@unep.nl) or to visit the GPA website at <http://www.gpa.unep.org> **PH**

*Dr Lindsay Murray leads the Environmental Management Science Area within CEFAS, an executive agency of the UK's Department for Environment, Food and Rural Affairs.*





**"Geography cannot be changed; the central position of Italy is unique. Unfortunately, there are still many hindrances against the exploitation of such huge potential"**



## Hampered by bureaucracy

Italy's ports are at serious risk of losing out to Mediterranean rivals, says Contship Italia's *Cecilia Eckelmann-Battistello*

Italy is at a crossroads," Mrs. Eckelmann-Battistello told *Ports & Harbors'* correspondent Angelo Scorza.

"Without adequate investments to strengthen infrastructures, dredge access channels and improve rail and road connections," she continued, "we are at risk of losing a formidable opportunity to intercept the growing trade flows passing through the Mediterranean from the Far East to North Europe and recently also to the USA."

"The demand for container handling in Med ports is due to rise by 75% from 29 million TEU in 2004 to 54 million, taking advantage of the 900 containerships in shipyards' orderbooks at the moment, of which 237 are in excess of 4,000 TEU capacity and 200 of 7,500 TEU. Unfortunately, Italy's facilities have neither the requested larger berths nor deep enough drafts to accommodate those mega-vessels," she added.

President of the *Federation of European Private Port Operators* (FEPORT) since February this year, Mrs. Eckelmann-Battistello's severe warning — in the form of a 15-page dossier

— cannot be taken lightly. At the end of 2004 it was circulated to a number of senior figures who can make an impact on the country's port policy, including the prime minister, Silvio Berlusconi, transport minister Pietro Lunardi and the president of parliament's transport committee, Luigi Grillo. It was also sent to the presidents of a number of industry associations: Luigi Smeriglio (transport operators' federation *CONFETRA*); Tommaso Affinita (port and harbor authority *ASSOPORTI*) and Luca Montezemolo (industrialists' federation *CONFINDUSTRIA*).

### Credibility

As chairperson of Contship Italia Group (part of the German Eurokai-Eurogate Group), Mrs. Eckelmann-Battistello manages five container seaport terminals in Italy that handled over 5.6M TEU in 2004 – 60% of Italy's total cargo volumes:

- Medcenter Container Terminal (MCT) in Gioia Tauro
- Cagliari International Container Terminal (CICT) in Cagliari
- La Spezia Container Terminal (LSCT) in La Spezia

- Terminal Darsena Toscana (TDT) Leghorn in Livorno, and
- Terminal Container Ravenna (TCR) in Ravenna.

As such, the company has a large stake in the industry's future, but Mrs. Eckelmann-Battistello's extremely censorious report is aimed at countering the critical situation facing the country's *entire* container port industry.

Although she has a liner sector background, having joined Contship Containerlines in 1973, Mrs. Eckelmann-Battistello has focused on port management and feederings since the company was sold to CP Ships in 1997. And she has an outspoken history of agitating for increased investment and development of the country's ports

In early 2004, Italy's vice minister for production, Adolfo Urso, accused Contship's main hub terminal, MCT, of not being able to drive the socio-economic development of the Calabria region, arguing that the container facility was still totally segregated from its surrounding context.

"The port's activity cannot be limited to the transshipment of containers only; the under-developed area surrounding Gioia Tauro needs logistics activity as well as the development of handling activities of cargo other than boxes," he asserted.

In March 2004, Contship replied by publicly approaching the government to support the development of MCT, which handles over 3.5M TEU per year.

## Minister of Transport Pietro Lunardi and ASSOPORTI chief Tommaso Affinita

### La Spezia says goodbye to its super post-Panamax cranes

"We need more tailored investments and the start-up of programmes to allow the doubling and in some cases the trebling of the port's present capacity of 5M TEU within 10 years," Mrs. Battistello-Eckelmann explained. "Gioia Tauro is the first container port in the Mediterranean, the fifth in Europe and the twentieth in the world as far as the volumes handled are concerned," she continued. "Contship Italia has certainly played its part to allow such great achievements."

She is frustrated at the apparent contrast between Italian port planning and investment programmes with those of the rest of Europe, stating: "I do not understand at all why we are so slow, and often contradictory, in taking strategic decisions. Whereas all European countries have concentrated their efforts onto one or two main ports, Italy has 26 port authorities, but still lacks centralised direction on port issues. That confused strategy, if any, is the reason why we are at risk of losing a formidable opportunity to grasp the abundant flow of containers that are supposed to transit through the Mediterranean in the next few years."

"Further to the growing Far East-Europe trade," she continued, "some global carriers are already considering quitting the trans-Pacific trades in order to serve North America from the Far East, thus responding to the seven days average waiting time that their vessels are forced to endure, due to the congestion of many US ports."

"Geography cannot be changed; the central position of Italy is unique. Unfortunately, there are still many hindrances against the exploitation of such huge potential," she asserted.

### In contrast...

"Our close competitors Marseilles, Barcelona and Valencia run very fast with their development plans and have already surpassed Italy by far," Mrs. Battistello-Eckelmann noted. "On another front, there are newcomers, such as Constantza in the Black Sea, Tangiers in North Africa, Port Said and Beirut in the eastern Mediterranean, who have announced challenging ambitions. In the past, our only competitors were Algeciras and Malta; nowadays there are many more."

### La Spezia Container Terminal — delayed dredging has prevented further growth

"Contship's investment of €500M in ports could mean nothing if there is no parallel support from the government," she warned.

One of the central issues hampering development of Italy's ports revolves around dredging. According to data presented by Contship Italia, this is the current situation in the most important European ports:

■ North Europe: Hamburg 16.7m, Rotterdam 16.6m, Antwerp 15.5m, Felixstowe 15m, Southampton 15m, Bremerhaven 14.5m, Le Havre 14.5m, Amsterdam 13.7m.

■ Mediterranean: Piraeus 16.5m, Algeciras 16m, Valencia 16m, Barcelona 16m, Malta 15.5m, Marseilles-Fos 14m.

■ Italy: Trieste 18m, Gioia Tauro 13.5/15.5m, Genoa 14.5/15m, Cagliari 14m, Taranto 14m, La Spezia 13.5/14m, Livorno 13m.

Mrs. Battistello-Eckelmann notes: "It can be seen that only Trieste is at the European pace, delayed dredging has prevented La Spezia's further growth. Our LSCT terminal had taken over three post-Panamax cranes to fit the new Ravano terminal where the Port Authority's plan was to dredge to 18 metres. But the project was abruptly stopped by 'greens' and local institutions, so LSCT had to sell its brand new cranes!" she complained.

"This is symptomatic of how different Italy is, for instance, from Germany, where any multi-annual planning is complied with year-by-year. On the contrary, everything in my homeland is volatile. Bureaucracy is the power that really rules. But those who stop dredging jeopardise the future of their kids, who will have no industry to be employed at," she warned.

The strong criticisms raised by Battistello are widely shared across Italy

and both Tommaso Affinita and Luigi Grillo agreed with her diagnosis.

"The excess of bureaucracy is the main burden on the shoulders of our ports. Every decision or initiative involving new infrastructures passes under the scrutiny of a variety of organisations which inevitably slow its pace," said the ASSOPORTI president.

"We need a dramatic speeding up of the legislative decision process," said Mr. Grillo. "It's vital that people realise how strategic the port sector is for the Italian economy. Between 1993 and 2000, no significant port investments were finalised in Italy, thus allowing rival surrounding countries to bypass our port system. Now we need to activate a new flow of public investment in the facilities."

Giuliano Gallanti, former president of Genoa Port Authority (1995-2003) — and chairman of the *European Sea Ports Organisation* since December 2004 — has made similar comments: "Italy is living an incredible paradox. Everybody in Europe, apart from the Italian authorities, recognises that our country, due to its natural strategic position in the middle of the Mediterranean, is the obvious logistics platform to access the continent from the Far East, a trade whose volumes are growing day-by-day."

But he added: "Still, port development is a very delicate matter and the common citizens are in general against it. Italy is probably the only modern country where ports give up areas to the benefit of cities, which use this additional land for their citizens' recreational activities!"

"Nobody at present worries where their kids will work if the port industry is neutralised today," he concluded. **PH**







# Operation Secure Commerce security at a price

*Tony Seideman* investigates the costs of ensuring secure commerce at the US Port of Tacoma

When Senator Patty Murray looks out of her office window at the waters of Puget Sound, she sees both a terrifying and exhilarating sight.

Every day, huge container ships arrive from the Pacific Ocean's trade lanes, part of the incredibly effective, highly efficient global transport system that has helped transform the world's economy over the last couple of decades. Yet with those economic opportunities comes potentially terrible threats.

"America's ports are not as safe as they need to be to protect our people and our economy," Sen. Murray told *P&H*. Tremendous progress has been made in many areas, she added, but the real work has only just begun.

Sen. Murray's comments reflect both the realities of the world's logistics environment and the enormous sea change that took place in the attitudes of the

American transport industry following the September 11 terrorist attacks. Security had always been a priority, but now it became *the* priority.

Before September 11, most security efforts focused on theft prevention, but now ports had a new, far more dangerous threat to confront in the shape of terrorism. The pressure to fundamentally alter basic rules, procedures, policies and spending plans became unbearably intense.

While the threat of terrorist attacks might be more theoretical than real, the ferocious commitment of the country's government to requiring ports to beef up their security — whatever the cost — is a fact of business life that had to be dealt with.

Two other factors soon became apparent: the extreme reluctance of the federal government to pay for the costly mandates it forced upon the nation's ports and the massive, terrifying incoherence of the gigantic bureaucracies that are supposed to deal with the challenges.

"We're falling short in two areas — coordination and funding," Sen. Murray stated. "Our various port security

programmes are not coordinated, so they don't give us the layered protection we need," she added.

Making the situation worse, industry officials say, is the fact that the creation of the Department of Homeland Security has almost totally scrambled the lines of responsibility when it comes to dealing with terrorist issues.

Compounding this is the fact that funds for applying the fixes the federal government has demanded are simply unavailable.

"The federal government has not provided enough direct funding to secure our ports. We continue to see about US\$1 billion in security requests, but only about \$100 million in funding," Sen. Murray continued.

### Neighbourhood watch

Few places experienced the transformation more intensely than the Port of Tacoma. Nestled comfortably in the USA's Pacific northwest, Tacoma had never faced some of the high-intensity theft-related security issues — disappearing containers and extensive shrinkage — that many facilities in more densely populated urban areas have to deal with.

What Tacoma did have was a neighbour that guaranteed the port had an unusually high level of security consciousness, the nearby military base of Fort Lewis. Nicknamed 'America's Power Projection Platform,' Fort Lewis generates a tremendous amount of military traffic, rolling cargo that had to be handled securely long before the terrorists attacked New York.

"We had a pretty good security system in place prior to 9/11 because we've handled significant military cargo throughout our history," said Timothy Farrell, Tacoma's executive director. "So our needs in that area were essentially extending and improving systems that were already in place."

Officials at the Port of Tacoma and its neighbour, the Port of Seattle, quickly realised that they had a two-fold battle to fight when it came to security. "We think of security in two categories," Mr. Farrell said, "firstly in terms of facility security and secondly in supply chain security."

Virtually all of the actions Tacoma has taken since the attacks have grown out of this conclusion. Simply defending the ground in Tacoma wasn't enough. For Tacoma's director of port planning and logistics, J. Michael Zachary, the immediate response to the 2001 attacks was almost as terrifying as the assaults themselves.

Mr. Zachary was working for logistics software providers I2 Technologies in 2001 and he was horrified at the way the nation's airborne logistics system simply snapped.

"What we in the transportation industry are afraid of is what happened — or more appropriately, what didn't happen — on September 12," he said.

That's one reason why Sen. Murray and Washington State's ports are among the driving forces behind *Operation Safe Commerce* (OSC). This is a US-led, multi-million dollar programme designed to both closely examine and dramatically improve the security of the world's supply chains. Specifically, it is doing this by looking at technology, policies, procedures and practices.

Creating and supporting OSC was just one of the myriad challenges Tacoma and its sister ports faced.

Until September 11, the number one function of any American port was to move cargo more quickly and efficiently. That's still one of the highest priorities, but the pressure to put security at the top of the list is relentless.

Moving to a security-centred focus has meant a fundamental alteration in corporate culture — as well as a massive allocation of money, manpower and creativity to an area that had made only limited demands in the past.

Officials at the Port of Tacoma realised that what was needed to deal with the situation were not just improvements to current operating procedures, but fundamentally new directions.

The port immediately began assembling teams of people from all areas of the facility and it quickly became apparent that, although the maritime industry might be going into some uncharted waters, there were specific new rules that had to be followed.

### Legal responsibilities

The most important of these was set by the *Maritime Security Act* of 2002 and subsequent versions of this legislation. Key aspects of the Act and its successors were based on the International Maritime Organisation's *International Shipping and Port Facility Security Code* (ISPS) and it was clear that responding to the regulations would take time, effort and money.

The Port of Tacoma was simultaneously working on its approach to the physical aspects of security. OSC's ongoing efforts provided tremendous insights on the logistics side of the equation and both aspects remain fundamentally entwined.

"OSC tracked shipments from their origination point, whether that was the factory floor or an agriculture field, to a distribution centre right here in Washington State," asserted Sen. Murray, who has rescued the programme from certain financial death numerous times.

"The products travelled by truck, train and ship along their journey and we watched them every step of the way. We monitored and analysed the security at the origination point, every subsequent transfer point, and on each mode of transportation until it reached the customer," Sen. Murray said.

Key findings include the fact that cargoes are most vulnerable not just at their point of origin, but in early transit before they reach ports and their already

**Orderly, secure progress at Tacoma's busy Evergreen terminal**



**Sen. Patty Murray defending security spending at the port**



implemented security systems.

"Cargo moving is more secure than cargo still," Mr. Farrell told *P&H*, quoting what could be the OSC's motto. "We asked 'where is that container vulnerable throughout its routing?' That comes down to the practices of the shippers themselves, and the practices of importers and exporters — plus the practices of factories, of shippers, of railroads of trucking companies, of government policies and law. It comes down to people."

### Maintaining momentum

Though many of the initial drives to build security are now complete, the future presents tremendous challenges. More work needs to be done to build bridges between labour and management, and to educate port workers. So claimed Tacoma's commissioner, Dick Marzano, who is also a past president of the International Longshoremen's and Warehousemen's Union (ILWU), Local 23.

"Employers and officials should be aware that workers are not just cogs in a machine," he said. "There's so much out there that I don't think we, as a union, are being told everything. It's not because they're trying to hide something, I think it's because they look at the labourers as pieces of the line that moves the cargo, instead of looking at them as part of the security system, ensuring that cargo has a safe journey."

"It's critical that with anything that has to do with the movement of cargo in a safe way, labour should be at the table along with management, both working hand-in-hand, ensuring that cooperation and education take place," Mr. Marzano concluded.

Sen. Murray believes the OSC may help offer a basic

roadmap for dealing with many of the issues the industry faces.

"OSC is laying the foundation for a new national port security regime," she said. "I am committed to working with the administration and my colleagues in congress to apply the lessons learned through this programme throughout our port and cargo system."

Tough decisions must be made, Farrell noted.

"We're an open country, trading freely with just about everybody in the world. If we wanted to be 100% secure we would stop trading. So as a population, we and our representatives at the national level need to decide how much risk we are willing to accept. Once we've made that collective decision, then I think supplying the resources to assure that we achieve that level of risk, that level of security... we can do that."

In the meantime, OSC and its sister programmes are proving an opportunity as well as a burden for the transportation world. Sen. Murray asserted that "Operation Safe Commerce is always going to be primarily about security, but when we developed the programme I specifically sought to both secure cargo and help expedite legitimate trade. The companies involved in OSC have told me how they've been able to really look at their supply chain and figure out ways to better manage it," she said.

"What we're finding as we work through Operation Safe Commerce and other programmes, such as the *Container Security Initiative*, is that companies are starting to look at their supply chain as an individual system now — some of them for the first time. What they're finding is that when you look at your supply chain as a system, there are efficiencies that they didn't even know were there." **PH**

## Ten steps to success

Port of Tacoma officials say they essentially took a 10-step process to meet the requirements of Operation Safe Commerce.

**1. Identify the threats** — Many ports have demanded technology and support they don't really need, for example, some ports have asked for technology to deal with cruise ships, although they may never handle passengers. Keeping focused is crucial to success.

**2. Target cargo vulnerabilities** — "You need to identify the vulnerabilities that accompany cargo that's coming in," said Mr. Zachary. That's where the OSC proved useful. "We took a look at the gaps and vulnerability along the entire supply chain for containers," he says. This helped the port choose which physical facility items to focus on.

**3. Mobilise the port community** — There are many different players in the maritime community and getting the agreement of terminal operators, carriers, shippers and unions was essential to creating an effective security environment. Many of the committees that were established to create the rules are still meeting.

**4. Bring experts into the process** — When it came

time to carry out the facilities analysis, Tacoma did just that. "There are several companies that specialise in security gap analysis and vulnerability assessments," Mr. Zachary added. "We've had more than one of them go to the Port of Tacoma."

**5. Secure forceful allies** — Senator Murray is one of the most important forces behind Tacoma's success. She not only created and supported OSC, but also played a key role in ensuring the port got funding to implement many of the physical aspects of the new security regime.

**6. Develop ways to fill security gaps** — One result of all of the analysis was the creation of tremendous amounts of information. A detailed and specific plan needs to exist to turn this information into forceful, effective action.

**7. Reinforce the physical aspects of port security** — Since 2001, Tacoma has received nearly US\$6M in grants for improved port security. This has enabled everything from the construction of new lighting and fencing systems to fund the implementation of a sophisticated digital video security programme.

**8. Create solutions that go beyond technology**

— Improved security isn't just about cameras, biometric identification and smart tags, it's about attitudes and behaviour as well.

**9. Implement new practices** — Once the research is done and the conclusions reached, the new technologies, practices and procedures *must* become part of daily business life. This doesn't happen without a lot of work and effort, but without it, all the investments may well be wasted.

**10. Think globally, not locally** — Improving the security of a worldwide logistics system means changing things around the planet, not just in a port. In fact, Mr. Zachary feels one of the most vital steps he can take is to make a plea to Europe for a new generation ISPS Code.

"ISPS was the international standard for facilities. Now we need an international standard for supply chain security," he noted.

"We need IMO, the WCO and the International Standards Organisation to take a leading role in developing these standards. The only way we get them is with European ports and European shippers demanding it."

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#### CONTACT INFORMATION

For enquiries about working session, visa, sponsorship, please contact:

Shanghai International Port (Group) Co., Ltd.  
18 Yangshupu Road 200082  
Shanghai China

Tel: (8621) 52341226, 52340646

Fax: (8621) 52340649

Email: port@sh-wes.com

For enquiries about registration, social events,

accompanying person's programme, tour, hotel and other general information,  
please contact:

Conference Secretariat

Jin Jiang International (Group) Shanghai Jin Jiang Tours Ltd. Tel: (8621) 65470891, 63290660  
191 Chang Le Road 200020  
Shanghai, China

Fax: (8621) 63230184

Email: iaph@portshanghai.com.cn

For enquiries about exhibition, please contact:

Worldwide Exhibitions Service Co., Ltd  
Room 801 Block B Nan Zheng Building  
580 Nanjing Road (W) 200041

Tel: (8621) 54654677

Fax: (8621) 64720408, 64153003

Email: info@iaph2005shanghai.org





# Bulking up at Fremantle

*P&H's* Eve Duffy investigates the Western Australian Port of Fremantle's programme to upgrade its bulk handling infrastructure

**M**ining conglomerate Rio Tinto is spending A\$400M (US\$306M) on its *Hismelt* project, which will see a massive 800,000 tonnes of commercial pig iron exported across Asia through the Port of Fremantle every year.

Last financial year, the outer harbour hosted 713 ship visits with each visit leading to 3.3 full time equivalent jobs in the wider economy. A spokesman told *P&H* that the *Hismelt* project will bring an additional 30 to 50 ship movements to Fremantle's outer harbour at Kwinana.

The *Hismelt* process is a revolutionary new direct iron smelting technology, developed largely by Rio Tinto in Australia, in which iron ore fines and other materials containing iron — such as steaming coals — are injected directly into a molten iron bath to produce a quality molten pig iron. This pig iron can then be considered both as a potential replacement for the blast furnace and as a new source of low cost iron units for the electric 'arc steel' industry.

According to Rio Tinto, it has the potential to substantially increase demand for Australia's reserves of iron ore by consuming the unsaleable high phosphorous fines found in vast quantities in the Pilbara region of the country.

Additionally, it will encourage a cleaner steel industry because it does not require coke ovens and sinter plants, and produces less greenhouse gas per tonne of hot

metal. Yet another advantage is that it will provide cost-effective steel options for developing countries and replacement for ageing plants in developed countries.

The huge amounts of *Hismelt* pig iron and the increased traffic it will bring have in turn necessitated a major, US\$30M bulk cargo handling upgrade at Fremantle and the port is nearing completion of the project at its Kwinana bulk terminal site.

## Key location

Chris Renwick, chief executive of Rio Tinto Iron Ore, said Kwinana had been chosen because it offered excellent port, rail and site infrastructure, but nevertheless, the upgrade of bulk handling facilities has been a major priority for Fremantle Ports, which operates the outer harbour.

Construction of the Kwinana *Hismelt* plant, which is jointly owned by Rio Tinto, US steelmaker Nucor Corporation, Mitsubishi Corporation and Chinese steelmaker Shougang Corporation, commenced in January 2003. In parallel with this, the infrastructure upgrade project lasted 15 months and employed up to 50 individual engineers and tradespeople.

Crucially, the port's infrastructure investment has seen the existing import and export conveyor systems upgraded to link into the new export conveyor built by *Hismelt*. Voest Alpine Materials Handling was awarded a US\$14M contract to build a new bulk unloader to

**End result — a ship lies alongside the bulk handling terminal at Fremantle's Kwinana outer harbour**

**Raw material conveyor running inland from the new bulk cargo unloader**

**Justin Willis, project manager for Hismelt Stage 1, pictured inside the new, quieter export conveyor system**

**Raw material conveyor stretching the port**

cater for the iron ore, coal and dolomite used in the Hismelt process.

The unloader has a peak through-ship capacity of 1,000 tonnes per hour and meets the high criteria for dust and spillage minimisation under the port's ISO-14001 accredited environmental management system. This will complement other programmes for dust management, such as paving main truck transport routes, the addition of dust extraction from the main storage shed, improved maintenance and operating procedures and collaboration with Hismelt to monitor dust levels.

### Keep it quiet

Justin Willis, project manager for Hismelt Stage 1, said catering for the export of pig irons, which weigh around 4.5kg each, provided unique design challenges.

The overall objective was to create something with as fast a flow through as possible while at the same time ensuring noise levels were minimised — "I guess you could say the aim has been to stop the pigs from grunting," he said.

For this process, the port purchased two Komatsu W600 front end loaders for use in loading the iron ingots onto the conveyor system — they are then stockpiled on a newly created concrete pad area that boasts capacity for 60,000 tonnes.

Next, the ingots are loaded onto an export conveyor for shipment through Kwinana bulk berth two. This conveyor was designed to load through-ship at 1,000 tonnes an hour, with a peak through-ship capacity stretching to 1,500 tonnes an hour.

The design challenge of minimising the noise levels was achieved through a series of linear actuators that pull the flow chutes down to ensure the pig iron's fed directly — rather than dropped — on to the conveyor belt. Additionally, a system of diverter gates is used to direct the flow of exported product and a series of 'hungry boards' ensures the pig irons do not bounce off the conveyor, thereby creating additional noise and safety hazards.

Mr. Willis told *P&H* that the system's design had been based on a similar conveyor system in Brazil, where noise levels had been successfully contained. The lessons learned there were put into action in Fremantle.

“I guess you could say the aim has been to stop the pigs from grunting”

A spokesperson for Fremantle Ports said that the infrastructure's first major trial was successfully carried out in late 2004, when the port received a large shipment of dolomite for Hismelt. Rio Tinto is due to commence export shipments to Asia in April.

### Wider investment

Fremantle Ports also operates Western Australia's only container port, which is located 20km north of Kwinana outer harbour and is capable of handling 465,982 TEU.

In addition, Fremantle has cruise ship — 10 calls last season — and motor vehicle import terminals, the latter registering an impressive 61,745 units in the last financial year.

Apart from the pig iron project, other bulk cargoes handled through Kwinana include grain, petroleum, mineral sands, fertilisers and sulphur.

Further infrastructure improvements to cater for these bulk cargoes include an \$11 million bulk storage facility which opened at the Kwinana bulk jetty in August 2003. This facility, which is a joint project of Fremantle Ports and United Farmers, stores up to 80,000 cubic metres of fertiliser. **PH**







## Shanghai — efficiency through innovation

Professor Bao Qifan, deputy president of the Shanghai International Port Group (SIPG), explains fuzzy logic and intelligent management's part in the success of one of the world's busiest ports

**A**t the end of 2003, the Port of Shanghai's container throughput was ranked third highest in the world — by the end of last year, with throughput at over 11M TEU, it was China's busiest.

Innovation and technological advances have played a very important role in this growth. Faced with traditionally inefficient man and machine management, technicians have taken a fresh approach to the limitations facing the port's container handling capabilities and have developed systems to streamline procedures in the five main areas of terminal operations:

- an intelligent container handling system
- multi-level management system
- equipment remote control / breakdown alarm
- electronic business system, and
- a computer simulation of terminal operations.

They've made a major difference to the port — let's take a look at all five in more detail.

### Smarter handling

Traditionally, several gangs worked to load / unload a container vessel, but their work rates, workload and equipment usage would differ, leading to an imbalance at times. When loading a vessel, for example, container tractors would travel laden to the quayside, but return empty to the storage yard — *vice versa* when unloading. This meant they were unproductive for nearly half the time.

Shanghai's solution was to design an intelligent handling system using the 'fuzzy logic' control theory and new software. Every container tractor working in the yard is now controlled by this software, which gives continuous, real-time commands to direct tractors in

Continuous 'best-fit' commands are issued to straddle carriers, radically improving stacking efficiency

NEW TECHNOLOGY		REAL WORLD BENEFITS	
Intelligent Container Handling System		Gate check-in time from two minutes/TEU to 30 seconds/TEU Quayside crane efficiency from 25 TEU/hour to 30 TEU/hour Yard utilization from 72% to 83%	
Multi-Level Optimized Management System		Berth utilization from 60% to 73% Throughput capacity from 57TEU/m2 to 84TEU/m2	
Remote Control and Breakdown Alarm	Containers handled per quayside crane from 160,000 TEU/year to 198,000 TEU/year	Equipment utilization from 51% to 62% Equipment breakdown ratio from 6% to 2%	
E-business Port System		Bill collection accelerated and payments receivable reduced by 20% Customers provided with terminal information through network	
Container Operation Simulation System		Time at port per vessel reduced by an average 17.38% Moves per vessel per hour increased by an average 13.29% Containers handled per metre of berth increased from 1,342 TEU/year to 2,367 TEU/year	

the most efficient manner possible, minimizing the unproductive part of their cycle. It does this by using a 'simultaneous handling' approach to quayside crane operation when loading or unloading vessels.

When a crane removes a container from a vessel, it then loads a new one — thus, when a tractor brings a container to the quayside for loading, a newly discharged container's waiting for transport to the storage yard. Equipment utilization is maximised and working times consequently shortened.

Fuzzy logic has also been applied in the container stacking yard where a central computer makes judgement calls based on the constantly reported location and situation of all cranes and tractors. Continuous 'best-fit' commands are issued to the yard straddle carriers, radically improving stacking efficiency.

### Container management

The efficiency of Shanghai's traditional container management system depended mainly on individual operators' experience and subjective judgement ... which gave rise to errors and omissions. To improve on this, Shanghai has developed a multi-level, optimized management system based on computerised analysis coupled to new database technology.

Port technicians began by developing a set of parameters to measure the handling capacity and service quality of specific container terminals with the aim of simplifying operations. Key statistics covered container ships themselves (how many TEU, how long was the ship scheduled to be in port etc); port equipment reliability and utilization; container throughput times; storage yard management details; efficiency of personnel; berth details (how long, how deep, how many cranes etc) and how profitable the overall operation should be.

The system has an auto-assessment routine that collects statistical records and figures and creates

an information exchange platform via a network that managers can access whenever they want (and wherever they are) to assess the on-site operational situation. They can also remotely control the handling process as dictated by the alarm / monitoring system.

### Quick fix

In the past, Shanghai's equipment repair process was a relatively lengthy procedure, calling for an individual equipment operator to report faults to an on-call engineer, who in turn would report to his immediate superior if the fault was beyond his ability to correct. If the on-call engineer was based off-site at the time, this process could seriously interrupt port operations.

As you'd expect, Shanghai again looked to technology to streamline operations, developing a container handling equipment remote control and breakdown alarm procedure that introduced key computer hardware and software systems, including:

- an equipment 'data detective' and information collection routine
- PCL data group transit technology
- breakdown classification/identification systems, and
- information auto-transit function.

In practice, the system continuously assesses the operational status of key equipment and whenever an anomaly occurs it trips an alarm. The computer then automatically classifies the type of breakdown and

## Onward

While SIPG has built five container terminals, each with four container berths and the new technology developed by the technical team under Prof. Bao's leadership, it's now focussing on construction of the massive US\$12Bn Yangshan deepwater container port. And we'll have more about that in a future issue of Ports & Harbors





As a container is unloaded, a new one is loaded

passes the information via email or the mobile phone short message service (SMS) to the duty technician. If he's unable to repair the equipment, the system informs an experienced engineer, who can make a remote analysis and assist the technician via the network.

Business to business

Shanghai's managers are firm believers that a modern port needs to take advantage of the information revolution to establish closer contact with its customers, growing its container traffic in the process. So it was crucial for the port to set up an e-business platform and a new web service.

The port's well-established electronic data interface (EDI) technology is being expanded to make this happen. EDI creates an information network by connecting a range of interested parties relevant to the port's operations — container lines, shipping and cargo agencies, customs and the commodity inspection bureau among others. It also provides technical support for information exchanges between these groups.

The new system takes advantage of the latest web software to allow for advanced, customised data exchanges between the port and the other agencies, providing the differing data that they require via a convenient and efficient working environment.

Simulating savings

Container terminal investment is a mixture of business venture and science. As it normally costs between RMB800M and RMB1Bn (US\$97M to US\$121M) to construct a large-scale container berth — and another

RMB100M to equip it — it's important to get it right! Shanghai embarked on a computerised risk reduction study that's resulted in the development of two products:

- A) A simulated container terminal operation system, and
- B) An optimized terminal equipment emulation system.

These help investors analyse the terminal's potential throughput capacity, identify potential operational bottlenecks, optimize handling equipment and calculate the minimum investment needed before any dredging takes place or concrete is poured.

Installed in the port's Pudong International Container Terminal Company (Pudong Co.) and other container terminals, the software's achieved good results in three main areas — efficiency, economic and social benefits. Over the last two years, for example, Shanghai's container throughput has increased by 53.5%, yet our wharf length has only increased by 14.3%. Other benefits are detailed in the table on page 31.

In conclusion

In economic terms, the innovations have had a very real impact on port operations: huge growth in container throughput, income and profit has been achieved, yet with relatively small investments in new berth construction and employee expenses — see the table below.

Pudong Co. and the entire Port of Shanghai's net profit increases over the last two years were RMB83.93M and RMB173.403M respectively — giving the Chinese government tax revenues of RMB2.515M and RMB15.895M.

Crucially for the People's Republic of China, these five main areas of innovation have also enabled the port to operate far more efficiently in a social context. Not only has the rapid growth of the container industry secured work at the port, it has also stimulated the development of allied industries, cutting overall unemployment.

Given this success, we feel that Shanghai's technological development is a model that all other ports in China can learn from. PH

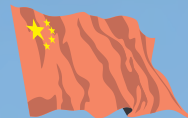
About the author

A port technology expert, Prof. Bao Qifan is Nanpu Stevedoring's former technology & engineering department manager and general manager of Longwu Stevedoring Co. In 2001 he became vice president of Shanghai International Port Group, in charge of technology and engineering development.

	Year	Wharf Length (m2)	Employees	Equip Net Value (RMB 1,000s)	Cont. Volume (TEU 1,000s)	Income (RMB 1,000s)	Profit (RMB 1,000s)	Tax Levied (RMB 1,000s)
Pudong Co.	2000	900	547	40,109.0	1,208	373,090	113,990	12,150
	2001	900	549	46,954.0	1,441	433,170	155,280	13,370
	2002	900	539	43,669.0	1,780	521,130	240,560	15,960
Port of Shanghai	2000	4,672	3,602	147,452.4	5,612	1,788,798	1,075,679	58,300
	2001	4,672	3,548	179,673.8	6,340	2,113,851	1,154,197	67,510
	2002	5,338	3,506	198,072.7	8,612	2,516,873	1,343,967	80,880



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# Opportunities and challenges facing the world's ports

That's the theme of the 24th IAPH World Ports Conference and Lu Haihu, president of Shanghai International Port Group and IAPH's conference vice president, is your host



It gives me great pleasure to invite delegates from the world over to attend this 50th anniversary congress, which will be held in Shanghai, China, from 21 to 27 May.

I'm also delighted to present to you our website – [www.iaph2005shanghai.org](http://www.iaph2005shanghai.org) – where you'll find the latest information outlining the overall arrangements for this special event.

Once again a significant gathering, the conference & exhibition not only celebrates IAPH's foundation in 1955 and its 50th birthday, but has also attracted prominent figures

from the port and shipping communities worldwide as well as senior officials from both China's central government and Shanghai's municipality.

China is a civilized, ancient country with a 5,000-year history. Shanghai is one of its most modern and dynamic cities, rich in contrast and colour, where you'll find a harmonious blend of culture, cuisine, arts and architecture. And in the 21st century, Shanghai will undoubtedly become one of the financial, trade and shipping powerhouses of the world.

During the congress, delegates will have opportunities for fruitful discussions on topics of global concern to ports. We have not forgotten the social side either. Delegates, spouses and accompanying persons will

have the chance to visit not just Shanghai and its surrounding attractions, but other, spectacular parts of the country – everyone can get to know a little about China's life and culture.

As I write, preparations for the conference are well underway and we're looking forward to meeting our guests from home and abroad to share this wonderful event – a time of friendly gathering and a chance to understand the challenges and opportunities facing the world's ports. See you in Shanghai in May!

Lu Haihu

陆海枯

## Registration

Contact the organizers or use the web – [www.iaph2005shanghai.org](http://www.iaph2005shanghai.org) – to register for the conference

Delegate fees for IAPH members are US\$2,250 (non-members US\$2,600) and a spouse or accompanying person is included (additional accompanying person fee is US\$850).

Delegate / accompanying person registration includes a cocktail reception for early arrivals; transportation between hotels and other venues; a welcome dinner; grand theatre night;



See Shanghai's ancient Yu Garden

Chinese folk-culture tour; Houston night; a technical visit to Yangshan deepwater port and a farewell gala dinner.

In addition, the price includes the following accompanying persons' trips:

Shanghai Museum – a half day at one of China's best museums (22, 24 & 26 May)

Suzhou – a full day tour with lunch amid beautiful gardens, plus Chinese wine tasting (22 & 26 May)

Hangzhou – full day with lunch, a boat trip and Dragon Well tea picking (22, 24 & 26 May)

Jade Buddha Temple – half-day trip to this large, complex temple built in Song Dynasty style (22, 23 & 25 May)

Ancient Town – a full day with lunch, it includes a 'gondola' canal ride (21, 22, 24 & 26 May plus afternoon trip only on 23 May).

## Tour Programme

The organizers have an ambitious series of pre- and post-conference tours – booking and other information via email [tour@iaph2005shanghai.org](mailto:tour@iaph2005shanghai.org)

Beijing & Xi'an – China's capital plus the ancient city of Xi'an, starting point of the Silk Road and home to the terracotta warriors



Xi'an's terracotta warriors

and horses (17-22 May or 28 May to 2 June, price US\$780).

Huangshan Mountain – it's said that no mountain is worth seeing after a trip to 'the number one mountain under heaven,' undoubtedly China's most celebrated for its grandeur and beauty (18-22 May and 28 May to 1 June, price US\$540).

Mount Putuo – a famous scenic island with a long culture of Buddhism (19 to 22 May and 28 to 31 May, price US\$410).

Three Gorges – sail along the Yangtze through Xiling Gorge and enjoy the scenery before the controversial new dam sinks it forever (17 to 22 May and 28 May to 2 June, price US\$990).

Yunnan Province – enjoy the old town of Lijiang, regarded as the 'Oriental Venice,' and Jade Dragon Mountain and its glacier (17 to 22 May and 28 May to 2 June, price US\$1,030).



Grand Hyatt – the world's tallest hotel



Changhang Merrylin – modestly priced

## Official Hotels

The following hotels are close to Shanghai International Convention Centre, will each have conference information booths and benefit from shuttle bus services

### FIVE STAR

*Shanghai International Convention Centre Hotel*, the HQ hotel. Prices from US\$165 [www.shicc.net/en/briefing.htm](http://www.shicc.net/en/briefing.htm)

*Pudong Shangri-La*, sited on the Huangpu River and with views of Shanghai's riverfront. Prices from US\$205 [www.shangri-la.com](http://www.shangri-la.com)

*Grand Hyatt*, on the 53rd to 87th floors of the Jin Mao Tower, it's said to be the world's highest. Prices from US\$240 [shanghai.grand.hyatt.com](http://shanghai.grand.hyatt.com)

*Sofitel Jin Jiang Oriental*, minutes from downtown People's Square and the Bund on Huangpu River. Prices from US\$142 [www.sofitel.com](http://www.sofitel.com)

### FOUR STAR

*Holiday Inn*, with swimming pool and fitness centre.

Prices from US\$115 [www.holidayinn.shanghai.ichotelsgroup.com](http://www.holidayinn.shanghai.ichotelsgroup.com)

*Zhongyou*, an American style hotel with speciality restaurants. Prices from US\$105 [www.sinohotel.com](http://www.sinohotel.com)

*Courtyard Marriott*, has a business centre and beauty salon. Prices from US\$120 <https://marriott.com>

### THREE STAR

*Changhang Merrylin*, convenient for anywhere in the city. Prices from US\$70 <http://shanghai-hotelguide.com>

## Essential Information

The 24th IAPH World Ports Conference and 50<sup>th</sup> anniversary celebration is being organized by the Shanghai International Port Group (SIPG)

**Where** – Shanghai International Convention Centre, Pudong, Shanghai, China

**When** – May 21-27, 2005

**Contact** – SIPG, 18 Yangshupu Road 200082, Shanghai, China

**tel:** +86 (21) 654-70-891; **fax:** +86 (21) 632-30-184

**email:** [iaph@portshanghai.com.cn](mailto:iaph@portshanghai.com.cn); **web:** [www.iaph2005shanghai.org](http://www.iaph2005shanghai.org)

## The Conference

Split into six sessions, plus a visit to Yangshan deepwater port, the 24<sup>th</sup> World Ports Conference opens with a 50th anniversary keynote speech from A.P.Møller-Maersk container business CEO Tommy Thomsen



Keynote speaker Tommy Thomsen

### MONDAY MAY 23 – SESSION ONE

Overview speaker S.Naruse  
World Economy and Maritime Trade, C. Bert Kruk  
China's Economic Development and Port Requirements, Mrs. Luo Ping  
Container Shipping & Ports World Market, Dr.Fu Yuning  
Global Perspective & Strategy of Shipping Industry, Wei Jiafu

### TUESDAY MORNING MAY 24 – SESSION TWO

Overview speaker J.L. Estrada  
Development of Logistics Parks in Port, Charles Heath  
Cluster Management in Seaports, Dr. P.W. de Langen  
Future Ports: A Global Terminal Operator's View, James S. Tsien  
Future Ports: A Global Logistics Provider's View, John. Lanigan  
Development of Yangshan Deepwater Port, Gu Gang

### TUESDAY AFTERNOON MAY 24 – SESSION THREE

ISPS Code Implementation now and in the future, F.M.J. van de Laar  
Security for Shippers, Werner Krudewagen  
Security and the Shipping Industry, Mrs. Peng Cuihong  
Security and Facilitation – Customs' Approach, Jouko Lempiainen  
The View of the EU Commission on Global Security, Christian Dupont  
Seaport Security in Progress at US Ports, M.C. Dinsmore

### WEDNESDAY MAY 25 – SESSION 4

Overview speaker Capt. Abdul Rahim Abd Aziz  
Investment Strategy of Global Lines and Terminal Operators, Kim Fejfer  
Asia Case Study: Partnership with the Private Sector and a Port Authority's Role, Mrs. Neera Saggi  
NYK's Global Terminal Strategy, Masahiro (Mark) Aoyama  
Latin American Case Study: Port Privatization and Future Prospects, Angel González Rul  
African Case Study: Quo Vadis Port Reform? Alphose Siyam Siwe

### WEDNESDAY MAY 25 – 13:30-17:30

Technical Visit to Yangshan

### THURSDAY MORNING MAY 26 – SESSION 5

Overview from Dr. Geraldine Knatz  
US Approach to the Green Port / Clean Port, Ms. Laura Fiffick  
EU Approach to Environmentally Friendly Ports, Patrick Verhoeven  
Dredging – Management Choices for Ports, Constantijn Dolmans  
Mitigation and Environment Management, Greg Martin  
Restoration of Marine Environment in a Port, Toshio Tsutsumi

### THURSDAY AFTERNOON MAY 26 – SESSION SIX

Overview speaker Santiago Millà  
Integration of Marine Operations in Port Development – Maasvlakte II, Peter Mollema  
Management of the Malacca Strait Waterway, speaker to be announced  
Challenges of Developing a Port Community System, Alistair Petersen  
Container Terminals Innovation – Automation & More, Stephen Lee  
Regulation Project of the Deepwater Channel at the Mouth of the Yangtze River, Jin Liu

### FRIDAY MAY 27

Closing plenary session and networking opportunities





Italian marines from ITS *Scirocco* prepare to board a dhow in the Persian Gulf

## IMB – piracy attacks down

Reported incidents of piracy worldwide for 2004 were substantially down on the previous year, according to the latest report from the ICC's International Maritime Bureau (IMB).

The Piracy Reporting Centre received a total of 325 incident reports last year, compared with 445 during 2003.

However, it wasn't all good news as the IMB reported that the level of violence used in the remaining attacks actually increased, with 30 crew killed, nine more than the previous year. A worrying trend also continued, with kidnap and ransom demands for 86 crew members snatched throughout the year.

### Risk remains

Indonesian waters still top the piracy incident charts, with 93 individual attacks, but even this high figure showed a decline from 121 attacks in 2003. In the same region, the Malacca Straits remain a piracy hotspot, coming in at second place with 37 attacks. These were all serious, involving gunfire and resulting in 36 crew kidnappings, four deaths and three serious injuries.

Attacks in the region have been curtailed after the 26 December tsunami swept the area and there is speculation that the pirate groups and organised crime syndicates that were operating out of Aceh have been wiped out. They will certainly have lost weapons and boats and with large numbers of warships in the area supporting the relief efforts their ability to execute such attacks has certainly been greatly reduced. Despite this, the IMB is not prepared to lower its warning status for the area.

Capt Pottengal Mukundan, Director of the IMB, warned against premature action. "Although the decline in the number of attacks is to be welcomed, there is concern that in some key hot spots the situation has deteriorated," he said. "There is an overall increase in the attacks in the Malacca Straits and violence in the attacks in Nigeria has increased. Attacks in Lagos accounted for the highest number of reported attacks in a single port. Balikpapan, a major oil port in Indonesia, had the third highest number of attacks reported.

Overall, vulnerable vessels such

as tankers accounted for over a quarter of all attacks".

Some areas have seen a marked increase in attacks, according to the IMB report, including Haiti, Malaysia, Singapore Straits and the South China Seas.

### Silver lining

On a more positive note, however, nine areas have reported drops in attacks. These are Bangladesh, Colombia, the Dominican Republic, India, Gulf of Aden, Philippines, Red Sea, Venezuela and Vietnam.

Of these, Bangladesh has seen the biggest improvement with only 17 attacks – 41 less than the previous year.

Improved IMB reporting and data collation has played a big part in the overall reduction, with several alerts enabling prompt responses by government authorities and subsequent action against pirates. Additionally, some improved areas have predictably benefited from the increased naval traffic around the Red Sea and Persian Gulf as part of the global war on terror.

**For further information email**  
[imb@icc-ccs.org.uk](mailto:imb@icc-ccs.org.uk)

## IMO, UNEP environmental cooperation

IMO secretary general Efthimios Mitropoulos talked to Klaus Topfer, executive director of UNEP in January, about a number of key areas where the organisations could work together. In particular, they focused on environmental issues facing small island states and the organisations' responses to Asia's tsunami.

The former discussion followed a UNEP report on the impact of pollution from cruise ships and other vessels on the Caribbean. This included reaffirmation of IMO's support for the region as a 'Special Area' under MARPOL annex V.

According to the IMO, "insufficient countries in the region have put in place the required vessel reception facilities for the 'Special Area' status to enter into force."

Early ratification of 2004's ballast water convention was also discussed.

Beyond the Caribbean, they agreed to work closely on short- and long-term responses to the tsunami, and the IMO agreed to second two staff to start up a regional environmental crisis centre in Indonesia.

Mr. Mitropoulos also highlighted the existing international maritime safety information network and pledged the IMO's support, using this network to inform a future Indian Ocean tsunami warning system. He assured UNEP that it could rely on IMO for any and all further practical and appropriate help on this issue.

**Further information at**  
[www.imo.org](http://www.imo.org) or email  
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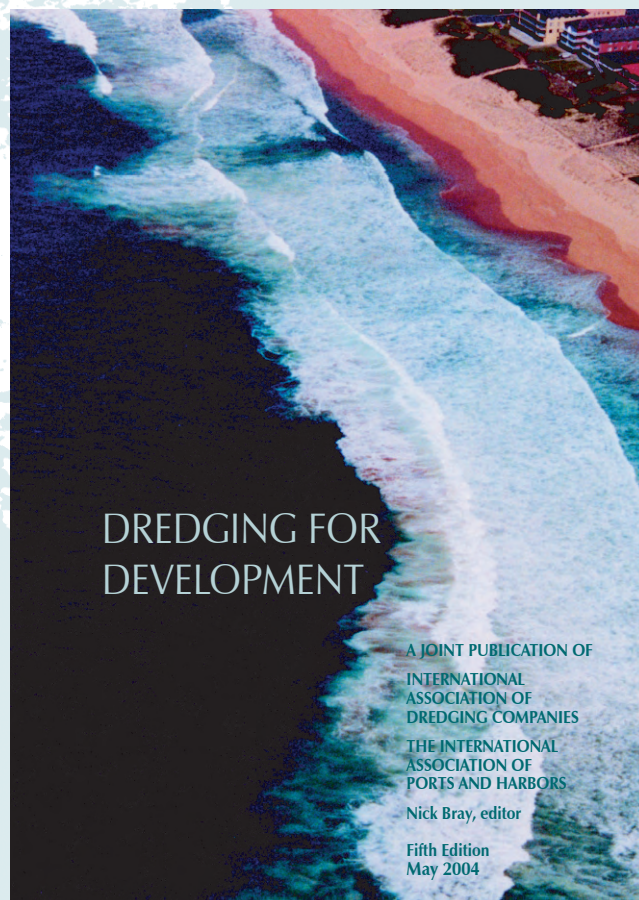
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# UNCTAD reviews seaborne trade rise



Singapore's busy port is symptomatic of maritime trade across Asia

Worldwide seaborne trade is describing a healthy upwards parabola, according to the latest Review of Maritime Transport, released by the United Nations Conference on Trade and Development (UNCTAD).

Released on 11 February, the report provides a detailed breakdown of maritime trade for 2003 and expands on figures for 2004, sketching out improved growth for the last two years. It puts global maritime trade for 2003 at 6.17 billion tons, with an annual growth rate of 3.7% year, up on the flat rate of 1% the previous year.

While UNCTAD explains this growth largely as a result of solid economic performance in China (recently rated as having overtaken the US as the world's biggest consumer society), Japan, Europe and the US, there were a number of encouraging trends for the rest of the world.

Developing countries reportedly accounted for the lion's share of the 20.7% of world export tonnage from the Americas and around two thirds of the total tonnage of the entire southern hemisphere.

By comparison, Asian states made a particularly strong showing, with 37.2% of the total world tonnage figure, with the world's six largest container ports and 20 of the 30 busiest container ports in

the world all based in the region.

In addition, UNCTAD claims Asian nationals make up half of all crews, while countries in the region make up two thirds of global port operators and 83% of container shipbuilding. This position of strength encouraged UNCTAD to predict South East Asian container growth of around 11% in 2004 and 2005, with increased trade between Asian nations and fuelled by Chinese exports to Europe and North America.

A glance outside Asia tells a slightly less positive story, with developing countries showing a general decline in world trade shares. UNCTAD shows a slip for both loaded and unloaded goods across all developing countries, down from 48.8% and 30.9% to 48.2% and 29.7% respectively.

Developing African states accounted for only 6.5% of loaded goods and 3.2% of unloaded goods. Even with the soaring success of their neighbours, developing states in Asia also dipped, claiming 28.9% and 20.7% of loaded and unloaded goods respectively. Developing states in the Americas likewise exported more than they unloaded, with 12.3% share of the former and 5.4% global share of the latter.

For the full report visit UNCTAD's website at [www.unctad.org](http://www.unctad.org)

## ICS warns of legal threats to shipping

The International Chamber of Shipping's (ICS) executive committee met in late January and raised concerns about legal developments in the European Union (EU) that the organisation believes will "threaten the globally accepted system of maritime law."

Rolf Westfal-Larsen, chairman of the ICS, stated "ICS is very concerned by the outcomes of the second reading of the draft EU directive on Ship Source Pollution by the European Parliament Transport Committee. If the final directive retains its current form and permits seafarers to be criminalised and threatened with imprisonment for genuine accidents, then it will be in direct conflict with the obligations of EU members under the MARPOL convention."

Aside from this conflict

and the potential costs that ship-owners would incur from criminalisation, Mr. Westfal-Larsen is concerned that "the EU's intention to apply criminal penalties to ships and crew in territorial waters would appear to undermine EU plans to require ships that get into difficulties to use designated places of refuge."

Concluding his statement, Mr Westfal-Larsen reserved some criticism for the International Shipping and Port Facility Security code.

He is concerned about the "over-zealous" enforcement of the ISPS code. "The refusal of some officials to wear identity badges," he continued, "prevents ships from adhering to their ship security plans, creating an impossible dilemma for crews."

More information and Mr. Westfal-Larsen's full comments can be found at [www.marisec.org](http://www.marisec.org) or email [ics@marisec.org](mailto:ics@marisec.org)

## WCO briefs diplomatic staff

The World Customs Organisation (WCO) briefed over 90 ambassadors and senior members of the Brussels diplomatic corps on its Trade Facilitation, Security and Capacity Building initiatives on 24 January.

Specifically aiming to raise awareness of the WCO's work on facilitation with the World Trade Organisation and the WCO's newly adopted Framework on Standards to Secure and Facilitate Global Trade, the briefings aimed to enhance cooperation between trade, foreign ministries and customs organisations.

Kunio Mikuriya, the WCO's deputy secretary general, explained that "this framework

sets out principles and standards which together constitute a set of measures to be adopted by all WCO Members. It aims to provide uniformity and predictability to the conduct of trade, and ensure security and facilitation for the passage of goods at borders."

The WCO recognised that some customs administrations desperately need to implement the framework to modernize and adapt their current practices.

The organisation is therefore determined to increase its efforts to deliver enhanced support for customs capacity building around the world.

For more info email [communication@wcoomd.org](mailto:communication@wcoomd.org)



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When the ISPS code passed into law on 1 July last year, it was met with a range of reactions from port and shipping operators, running from congratulatory applause, through bemusement all the way to downright dismay and horror.

Once in effect, however, its impact has neither derailed the flow of trade as some detractors were predicting, nor proven the all-encompassing panacea that a number of its supporters had hoped. Instead, and if tempered with the understanding that the code has a number of weaknesses and omissions, it has gathered widespread and general approval and shown it has the room and potential to grow.

To assess the groundswell of opinion on this crucial piece of legislation, the IAPH conducted an online survey of its members in late 2004. The study was open to all 218 regular member ports and was designed to identify any issues occurring between ports and ships since the introduction of the code. Sadly, only a disappointing 39 ports responded from 27 countries.

This 18% response rate threw up some interesting points, however, and provides a snapshot of the experience and issues IAPH members have faced across the world. Even amongst this small sample, for example, compliance with the code was not uniform — three of the ports had yet to be certified when the survey was closed at the end of December.

Broadly speaking, the obvious theme running through the questionnaire responses was that there have been no major incidents or hindrances to the smooth flow of ships and cargos since the imposition of the ISPS code. In fact, not a single response reported any disruption to ship and cargo handling.

### Enforcement

The picture was similar for ship visits to the ports, with only two respondents claiming they had refused vessels entry to their port. The first was the Georgia Port Authority (GPA) in the USA, which delayed and then fined “a few vessels due to violations of the 24-hour and 96-hour *Notice of Arrival* requirements.” These issues were resolved and the vessels were subsequently admitted.

In the Netherlands, Rotterdam’s experience was slightly different, using the ISPS as intended, to encourage security-conscious traffic.

“We warned ships and their agents if they intended to go to a non-certified terminal,” a spokesman said. “At least one of these ships then took action and refused to moor at the terminal concerned, choosing another, certified terminal in our port.”

A central tenet of the ISPS code — alongside the security requirements imposed on ports — is that there are equal security implications and responsibilities for ships. It is perhaps heartening then, that Malaysia’s Port Klang was the only member to announce it had actually refused entry to vessels without a valid *International Ship Security Certificate* (ISSC), though eight others inspected and detained vessels for ISSC violations.

In accordance with the code, those vessels without a valid certificate are to be ordered to a separate, secure



## Enemy at the gate? Learning from the ISPS

*P&H* surveys IAPH members’ first impressions of the International Shipping and Port Facility Security (ISPS) code



**Electro optical image of a potential intruder about to scale a security fence**

**Singaporean police conduct an anti-piracy drill**



anchorage for inspection. Only after the vessels are fully cleared are they allowed to enter port.

With no additional direct enforcement powers enshrined in the code, it is hoped that delays imposed on unlicensed or certified vessels will encourage compliance and enhance security awareness.

Making the most of these clauses, Kenya's main port of Mombasa stated that it has warned vessels that it will not stand for repeat offenders and without certification they will not be allowed to return on subsequent visits. Hong Kong takes this firm stance one step further and states that any vessel without a certificate would be detained until one can be issued.

### **Forewarned, forearmed**

Prevention is always better than cure and so early detection and classification of potential threats is encouraged by the code, requesting advance notification of arrival from inbound shipping.

In the USA, this role falls largely to the US Coast Guard, which monitors whether vessels have filed an ISCS and

actively investigates inbound vessels, according to the Port of Tacoma (*see also our cover feature*). Any vessel arriving without having filed a pre-arrival notice is liable to be returned to sea for the requisite time.

Similarly, north of the US border, vessels in-bound to Montreal are reported to Transport Canada, which passes the information to the appropriate agency — coast guard, navy or police — for inspection. In Japan, Nagoya reported that all non-compliant ships become the responsibility of the coast guard.

Elsewhere, the procedures vary, with pre-arrival warning requests ranging from 24 hours in advance (Bordeaux, Hong Kong, London), up to 48 hours (Abu Dhabi, Mombasa, Nassau) and even 96 hours (GPA).

Tuticorin in India requests additional information along with the arrival warning, including crew lists, vessel and cargo details. According to its response, failing to do this invites boarding by the Central Industrial Security Force.

A number of members reported on the importance of using new communications technology and information to ease these processes. Email, for example, is proving the perfect medium for pre-arrival notices, though Abu Dhabi noted that it also accepts files via the internet or fax.

In addition, Mombasa has made the decision to upload forms to the Kenya Ports Authority website. Likewise, Le Havre intends to computerize its whole check-in system.

### **Funding issues**

Six months after the instigation of the code, the subject of funding and who should foot the bill to achieve compliance remains a thorny issue. Malaysia's Bintulu port, for instance, railed against it.





**A member of the US Coast Guard's Maritime Safety and Security Team stands guard in front of New York's Brooklyn Bridge**

The port stated unequivocally that "security in port as required by the ISPS code has been an added burden to satisfy a few perceived threats, which have since proven not to exist except in very dubious circumstances. Does the cost incurred justify the ISPS requirements? Have seamen and shipping companies benefited from this?"

Bintulu did not stand alone on the issue of costs. Amongst others, it was joined by Georgia Ports Authority, though port managers there in no way disputed the worth of the ISPS code.

"The lack of federal funding for mandated security requirements has caused ports and other facilities to spend hundreds of thousands of dollars to comply with regulations," GPA spokesman told *P&H*. "The enormous additional annual recurring expenses needed to maintain these security improvements are also not funded, and will continue to increase each year. No rounds of the *Port Federal Security Grant Programme* provided any funds for training and awareness, greatly affecting both large and small facilities' budgets."

A Gothenburg spokesman observed that "there are different levels of ISPS implementation in other ports in Sweden. We have therefore written to the Swedish Inspectorate asking why this is still the case when our port invested a lot of new money to achieve full compliance."

Even when funding has been allocated, it hasn't always proven easy to secure the money in real terms. Mombasa's experience is a case in point.

"The world bank is funding a comprehensive security assistance package for Kenyan ports," said a spokesman, "but unfortunately, the national maritime security regulations have yet to pass through parliament."

### Potential flaws

The survey also revealed that there are a number of overlapping jurisdiction issues and security gaps at the ship/port interface and beyond, which still need to be urgently addressed.

For example, the Port of Helsinki noted that the "interface area is not clear. Where does the ship end,

where does the port facility begin and how big is that area?" It added that "some cruising vessels visiting Helsinki had great demands concerning so-called safe areas of 50 metres. It was very difficult for them to understand that this kind of thing is not covered [in the *Port Facility Security Plan*] and that these kinds of thing are the matter of negotiations."

Montreal offered similar concerns, putting the emphasis onto crew identification ashore.

"It seems most ships retain crew passports," the port stated, "and at the moment, there is no other means to identify a person, or even determine that he is indeed a given ship's crew member." As an interim solution, until vessels adopt an ID card scheme, the port is photocopying passports embossed with the ship's stamp.

Misunderstandings can cut in the other direction too. A good example of this occurred when one of Le Havre's pilots was frisked by a ship security officer (SSO) immediately after his boarding. Worryingly, on this occasion, the ship proceeded to the fairway with no pilot on the bridge.

Another example occurred under the GPA soon after the ISPS code came into being. There, unionised workers refused to show the SSO valid photo identification when entering a vessel, causing delays.

### Room for improvement

Though the ISPS has generally had a trouble-free birth, there is still room for it to grow. One key area for this is the move towards better coordination between neighbouring ports and also with national organizations.

Reykjavik is making inroads on this at a practical level, ensuring a degree of commonality in its support services, with the port management, police, customs and fire brigade all migrating to the same radio system.

Bintulu, Helsinki and Montreal — amongst others — all called for better coordination between ship and port facility security plans. In particular, Bintulu identified that there could be greater verification of previous and onward port calls, perhaps via online websites.

Rotterdam also supports greater local integration.

"We feel making one party responsible for security in the entire port region — a port security officer — has some major advantages, like clarity and one 24/7 contact point for port facility security officers (PFSO) and SSOs," said a spokesman.

Despite all this, the Romanian Port of Constanta is not alone in believing that "at the moment, the security measures taken both by port operators and port authorities are enough."

The IAPH membership has fully embraced the concept and the spirit of the ISPS Code and is committed to working more closely with national and international partners to the benefit of the entire global maritime community. **PH**



Yokohama's impressive skyline - venue for Exco meeting



Port tour for Naomi Kogon-Steinberg and Jose Perrot



The Pacifico Yokohama Convention Centre

# Yokohama sets 2005 agenda for IAPH

IAPH Executive Committee Meeting

Hosted by the Port of Yokohama

11 – 13 January 2005

32 delegates took part from 11 countries

**F**oremost in everybody's minds at the meeting was the tsunami that swept the Indian Ocean littoral states in December. As such, the opening moments were dominated by discussion of this and resulted in the adoption of a resolution to strengthen and protect ports against similar disasters in the future (see Pg 44).

This accounted for, attention turned to more traditional IAPH business and included a call from the chair of the finance committee, Garth Cowie, for increased financial protection for member ports. In particular, he advocates protecting against foreign currency fluctuations by setting

up foreign currency accounts and investing in foreign currencies to seek higher yields than Japanese markets are returning.

Pressing the urgency of the matter, Mr. Cowie recommended that these measures be put in place by the IAPH's Shanghai conference in May, to which the executive committee members all agreed.

## Setbacks

Comprehensive reports from the various committee chairs were slightly marred by insufficient case studies – in the case of Jose Estrada's combined transport and logistics committee – and repeated, unsuccessful attempts

to achieve quorum for Susumu Naruse's 'Cruise Terminal' study from the port planning and construction committee.

In the latter case, Mr Naruse had tried to convene three meetings for the thesis without success. Despite these setbacks, however, both parties hope to be able to supply final reports in time for the Shanghai conference.

On a more positive note, the Africa/Europe region meeting has been scheduled to be held in Kenya during the first week of December. Details of the venue will be posted in *P&H* nearer the time.

## Training

Details are also firming up of the planned young port professional trainee scheme in the Africa/Europe region, with a number of major European ports – including Antwerp, Hamburg, Le Havre and Rotterdam – offering to host African trainees for a week. Students will find €1,000 subsidies available to offset accommodation costs. Beyond this, the Asia/Oceania region is considering a similar 10-day programme with the Asean Ports Association.

## Membership push

The membership committee reported mixed results from 2004, with chairperson Naomi Kogon-Steinberg sketching

out "significant withdrawals seen in Australia, Canada, New Zealand and the USA."

The picture looked better for the Spanish-speaking membership, with Mr Estrada applauding a recent memorandum of understanding (MOU) between his organization, Puertos del Estados, CIP (Inter-American Committee on Ports) and the Organisation of American States (OAS). The key benefits of this MOU rest on their commonality of language and interests.

Mr Estrada proposed a port-to-port basis for the practical implementation of the MOU. He also pressed for Spanish to be made an official language of the Shanghai conference, which he believed would lead to more Spanish-speaking participation in the technical committees and open up the organization to increased membership from hispanophone countries.

Thomas Kornegay, first vice president of the membership committee backed this and suggested instigating a three-way relationship between IAPH, American Association of Port Authorities and CIP/OAS. President Pieter Struijs further suggested a regional meeting in South America. **Full minutes are available at [www.iaphworldports.org](http://www.iaphworldports.org)**



The executive committee gathers around for a photo call



# Tokyo celebrations



Keynote speaker Norio Ohga, Sony's honorary chairman

The first IAPH 50th anniversary event was held in Tokyo, Japan on 14 January. Some 400 IAPH delegates and distinguished guests attended the two part event. The first session was opened by IAPH President Pieter Struijs, followed by a congratulatory address from Japan's minister of land, infrastructure and transport.

In line with the IAPH celebrations, a number of friendly organizations - including the IMO and WCO - also offered up their own congratulatory messages and a video presentation was shown - Uniting the World's Ports - commemorating the association's golden jubilee.

Part two began with a keynote speech on expectations placed

on the world's ports from Norio Ohga, honorary chairman of the Sony Corporation. Various panel discussions followed, under the general theme of 'Working together for a Quality Port'. The panel for these discussions comprised IAPH 1<sup>st</sup> vice president H Thomas Kornegay, Yoichi Sueyoshi (Mayor of City of Kitakyushu), Yuji Hirano (Senior Advisor at NYK Line), Barry Cable (director of UNESCAP's transport and tourism division) and Professor Hitoshi Ieda (from the School of Engineering at the University of Tokyo). Helen Huang Ruiling ended with an open invitation to continue the IAPH's celebrations at the 24th World Ports Conference in Shanghai (see Pg 34).



A silent prayer for the tsunami victims of Asia

## IAPH tsunami resolution

In direct response to the devastation caused by the Asian tsunami, the IAPH executive committee took the decision to commit its membership to a new resolution to mitigate the effects of natural disasters on member ports in the future

Meeting in the immediate aftermath of the tsunami that struck on 26 December 2004, the IAPH executive committee unanimously resolved to increase port preparedness and survivability in the face of natural disasters.

Agreed at the 12 January IAPH meeting held in Yokohama, the IAPH resolved that its membership will make every effort to implement remedial action as soon as possible. Members are hereby encouraged to:

- **improve awareness among the member ports about the importance of preparedness for earthquakes and tsunami;**
- **share and transfer experience and know-how amongst the**

**membership by holding seminars and workshops in collaboration with UN agencies and other international organizations; and**

- **work with international organizations to develop guidelines on effective preparedness for natural disasters to mitigate their consequences.**

While the death toll sadly still continues to rise on a daily basis three months after the event, there has been no serious infrastructure damage reported by IAPH member ports located in the affected areas. IAPH would like to express its sincere condolences and sympathies to those people in the IAPH community who may have been affected by the Tsunami.

## New IAPH Membership Directory published

The 2005 edition of the IAPH Membership Directory has just been published and as *P&H* was going to press in late February, the directory was being sent out to every IAPH member, as well as various relevant international organizations and institutions.

This 219-page publication is made up of entries of each and every IAPH member. Secretary General Inoue said, "I sincerely appreciate the cooperation and support from every IAPH Member." Dr. Inoue also gave thanks to the 20 organizations that supplied advertisements for the publication.

For additional copies of the directory, please contact the IAPH secretariat at: [directory@iaphworldports.org](mailto:directory@iaphworldports.org)

## CLP Paris

The Legal Protection Committee (CLP) met in Paris on 10 December 2004, with eight members in attendance.

### Major items covered

- Ballast Water Convention: Cyprus Port's Cleopatra Shiceka prepared a paper based on the convention, which CLP discussed extensively. She will write a more concise paper for the IAPH and publication in *P&H* at a later point.
- UNCITRAL Works: draft convention on the use of electronic communications in international contracts. The next CLP meeting will discuss this subject in Shanghai.
- Review of 89<sup>th</sup> session of the IMO Legal Committee, October 2004. Particularly amendments to suppression of unlawful acts treaties, Draft Wreck Removal Convention and Ratification of HNS Convention.
- Marcel-Yves le Garrec of the Port of Bordeaux prepared a paper on questions of legal liability of the ISPS code and 'grey areas' of shared responsibility for security.

### ISPS warning

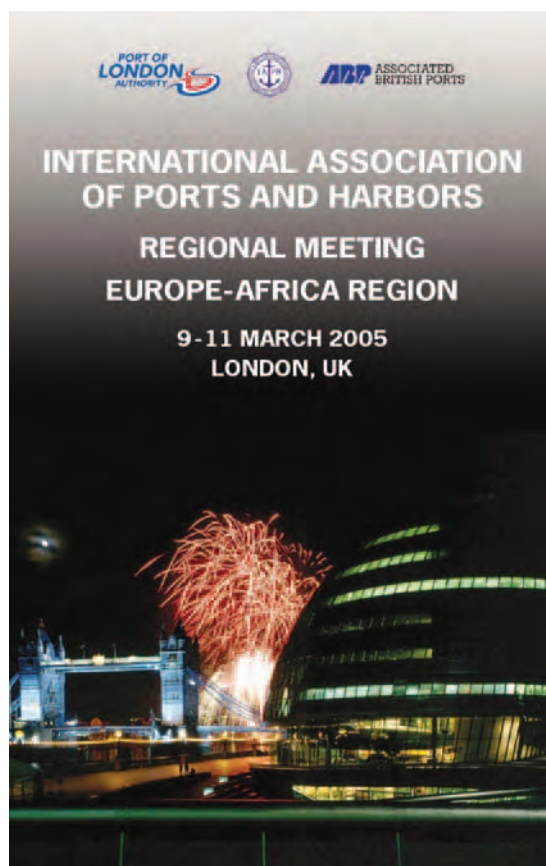
Key to all IAPH members, Michaël Foster of London insurers the TT Club, warned that insurance policies generally exclude ISPS risk. Mr Le Garrec expanded on the concern over responsibility, asking "when a port has to control the enforcement of the ISPS rules and a bomb blows up, who is responsible? The port or the state?"

### Database

The final version of the IAPH's legal database was also debated, informed by the last meeting in Charleston. The following steps will now be taken:

- present the contents and disclaimer to the IAPH secretariat to reproduce the contents into HTML for the internet, and
- ask the executive committee to secure a high exposure launch for the database.

Full minutes are available at [www.iaphworldports.org](http://www.iaphworldports.org)



## Next stop London

Next stop on the regional IAPH Golden Jubilee 50<sup>th</sup> anniversary celebrations will see members of the Association's Europe/Africa region gather in London between 9 and 11 March 2005.

Hosted by the Port of London Authority and held at the Marriott Hotel, County Hall, the celebrations have a strong programme arranged for visiting delegates.

Following the welcome address from president Pieter Struijs and the 3<sup>rd</sup> vice president of the IAPH, Siyabonga Gama, the group will break the discussion down into a sub-regional basis looking at developments in Europe and the Baltic, and then Africa and the Mediterranean. Each phase will be further structured into several key areas.

The final morning will consist of an open forum debate to cover customer's perspectives on port authorities, implication of ship size on port infrastructure, and financing issues.

Full details can be found at [www.portoflondon.co.uk/iaphmeeting](http://www.portoflondon.co.uk/iaphmeeting) and a PDF programme downloaded from the site.

## IAPH meeting point Tehran

The IAPH's Asia and Oceania region held its 6<sup>th</sup> meeting in Iran's capital Tehran between 1 and 4 February 2005.

Ahmad Donyamali, Deputy Minister of Roads & Transportation and Managing Director of the state-run Ports & Shipping Organization, welcomed visitors to the meeting. "It gives me great pleasure" he said, "to welcome capable speakers from around the globe, the forum will provide an opportunity to explore the grounds for cooperation on economic development aspects and promote the ports industry internationally, while also taking the environment protection issues into account."

Members and participants from all over the region attended the meeting and participated in the conference. This was split into two sessions made up of five themed papers,



A view across the Iranian capital to the snow-capped Zagros mountains

with each session introduced by an international speaker.

### Conference programme

The first forum session focused on Economic Aspects of Port Development Strategy. Its main papers were put forward as follows:

- Decade of development & future strategy of the Iranian Ports
- Eurasian Landbridge System
- The role of regional ports

throughout the world, and finally

- Ports productivity.

This session led into a forum on the Operational Aspects of Port Development Strategy:

- ICT and Maritime Transportation
- Logistics Chain at Ports
- Impact of Regional Cooperation Promoting Maritime Environmental Protection, and
- ISPS Code and Ports.



# IAPH at Indian Ports and Shipping conference

Bombay Chamber held its fourth International Indian Ports and Shipping conference at the end of last year, subtitled Port Connectivity in India.

Datin Paduka OC Phang, 2<sup>nd</sup> vice president of the IAPH and general manager of Port Klang Authority attended the conference as a representative of the IAPH.

In return, Mr LA D'Souza, executive director of the Bombay Chamber, wrote to IAPH secretary general Dr. Satoshi Inoue formally thanking the association for its continued support.

He added "we are grateful to you for the support extended by IAPH and we are also grateful for deputing Ms. Phang to the show.

Her presentation was thought provoking and stimulating."

Widely supported by sponsors from government and industry, the conference covered a range of issues. According to Mr D'Souza "the issues discussed during the various presentations at the conference will be compiled into a single strategy document, called

An Integrated Policy for Port Connectivity."

This report will then be submitted to the Indian minister of shipping and all ministers concerned with trade, logistics and shipping.

For more info visit [www.bombaychamber.com](http://www.bombaychamber.com) or email [Indianports@bombaychamber.com](mailto:Indianports@bombaychamber.com)

## American candidate

Bernard S Groseclose Jr. has been selected as nominee for the 3<sup>rd</sup> vice president position for the IAPH Americas region.

Mr Groseclose is a current member of the IAPH executive committee and president CEO of South Carolina State Ports Authority. He was selected at the Americas regional meeting in Houston, USA on 31 January 2005 and the final vote will be held at the IAPH conference in Shanghai.



**Bernard S Groseclose Jr.**



**Bernard Coloby (right) on retirement**

## Retirement

For 25 years Bernard Coloby was an active member of the IAPH, but on 2 December 2004, a party was held in Le Havre to celebrate his retirement from head of external relations at the Le Havre Port Authority.

Jean Marc Lacave, present CEO of the authority, underlined the tremendous work completed by Mr. Coloby during his 25 years spent at the port. The last months were particularly busy focusing on security issues, for which Mr. Coloby was decorated as Officer of

the Maritime Merit.

During this time, Mr Coloby has been a key member of several IAPH technical committees and, until recently, chaired the ship trends committee.

Among the numerous personalities attending the party were, Jacques Dubois and André Graillet, former CEOs at Le Havre and ardent supporters of the IAPH

## Condolences

IAPH honorary member Fumio Kohmura sadly succumbed to pneumonia and passed away at a Nagoya hospital on 6 January 2005.

Mr Kohmura had served the IAPH executive committee since 1973. Six years later, he was elected conference vice president of the association and in 1981 presided over the IAPH's 12<sup>th</sup> conference held in Nagoya. He was elected third vice-president of Nagoya Port Authority in the same year.

Mr Kohmura then moved on to preside over the Nagoya Container Berth Company and continued to serve the IAPH executive committee

for another two terms until 1987. In recognition of his long-standing service to the cause of IAPH, he was immediately elected honorary member at the 15<sup>th</sup> IAPH conference held in Seoul, Korea.

His funeral service was conducted on 7 January 2005 at a memorial hall in Nagoya. Dr Akio Someya, previous IAPH president and current executive vice president of Nagoya Port Authority, presented a message of condolence at the service.

Mr Kohmura left behind his wife, two daughters and a son. The IAPH sends its sincere condolences to his family. He was 85 years old.



**Veteran IAPH member Fumio Kohmura**

## Membership notes

The IAPH is pleased to welcome two new members.

### Regular Member

Bulgarian Ports Authority

Address: 5, Gourko Str. 1000 Sofia, Bulgaria

Telephone: 00359 2 9409 773

Fax: 00359 2 9879 480

E-mail: [iapa@mtc.government.bg](mailto:iapa@mtc.government.bg)

Website: <http://www.port.bg>

Representative: Capt. Peycho Manolov, General Director

### Associate Member

World Port Development

Address: Chantry House, 156 Bath Road, Maidenhead, Berkshire SL6 4LB, U.K.

Telephone: +44-1628-580-246

Fax: +44-1628-580-346

E-mail: [info@worldportdevelopment.com](mailto:info@worldportdevelopment.com)

Website: [www.worldportdevelopment.com](http://www.worldportdevelopment.com)

Representative: Mr. Peter van Schie, Publisher

# IAPH membership dues static for 2005

Invoices have been sent to all IAPH members requesting their 2005 membership dues. There is no change in the dues scheme for this year, meaning that the standing SDR1,070 fee for Regular Members has remained constant for ten consecutive years.

However, reflecting monetary market fluctuations and the exchange rates with the SDR (Special Drawing Rights of IMF) - the basis of monetary transactions of the IAPH dues scheme - there will be changes in relative cost.

Established IAPH practice sets out that the exchange rates used to calculate the dues for the following year be fixed as of 10 December, or the closest working day to it. These have been quoted as the basis of payment in the table below.

The IAPH Head Office would appreciate members remitting their dues to the IAPH account at the bank indicated below rather than sending cheques, as the commission on payments made by cheques is twice as much as that of direct payments bank account.

## IAPH Banking details:

Bank: The Mizuho Bank, Ltd., Marunochi-Nakadori Bank  
 Swift Code: MHBK JP JT  
 Acc No.: 883953  
 Acc Name: The International Association of Ports & Harbors  
*Please quote the Invoice Number and name of your organization.*

## Membership Dues for 2005

	Currency	¥	\$	€	£
	1 SDR* =	160.467	1.524	1.155	0.799
<b>REGULAR</b>					
1 unit	1,070	171,699	1,630	1,236	855
2 units	2,140	343,399	3,261	2,472	1,711
3 units	3,210	515,099	4,892	3,709	2,567
4 units	4,280	686,798	6,523	4,945	3,422
5 units	5,350	858,498	8,154	6,181	4,278
6 units	6,420	1,030,198	9,785	7,418	5,134
7 units	7,490	1,201,897	11,416	8,654	5,989
8 units	8,560	1,373,597	13,047	9,890	6,845
<b>ASSOCIATE</b>					
A-X-1, B&C	900	144,420	1,371	1,039	719
A-X-2	610	97,884	929	704	487
A-X-3	310	49,744	472	358	247
	160	25,674	243	184	127
	140	22,465	213	161	111
<b>TEMPORARY</b>					
600		96,280	914	693	479

\*SDR stands for Special Drawing Rights as defined by IMF (International Monetary Fund).

The above quoted exchange rates of four currencies per SDR existed on Dec. 10, 2004, as set for fixing the exchange rates for dues 2005 in accord with accepted IAPH practice.

# Dates for your diary

A selection of forthcoming maritime courses and conferences

## March

**14-17:** WMU ISPS Code Workshop

Malmö, Sweden

[www.wmu.se](http://www.wmu.se)

**15-17:** TOC2005 Asia, Hong Kong

[www.informamaritime.com](http://www.informamaritime.com)

**20-22:** The Inaugural International Transportation, Houston, USA

[www.itm-events.com](http://www.itm-events.com)

**21-24:** ITMMA Shipping Management, Maritime Safety & Port Security, Antwerp, Belgium

[www.itmma.ua.ac.be](http://www.itmma.ua.ac.be)

**23-24:** 2nd Logistics Europe 2005, Amsterdam, The Netherlands

[www.transportevents.com/](http://www.transportevents.com/)

**29-1 April:** IPER Improving Container Terminal Operations, Le Havre, France

[info@iper.fr](mailto:info@iper.fr)

## April

**4-6:** AAPA Spring Conference, Washington DC, USA

<http://aapa-ports.org/programs/education.htm>

**5-29:** UNESCO-IHE 41st International Seminar on Port Management, Delft, The Netherlands

[www.ihe.nl/vmp/articles/contentsShort-Coursess.html](http://www.ihe.nl/vmp/articles/contentsShort-Coursess.html)

**11-12:** The 3rd International Port Investors Forum, London, U.K.

[www.lloydslistevents.com](http://www.lloydslistevents.com)

**11-25:** APEC Seminar on Container Terminal Management for Francophone countries

[www.portofantwerp.be/apec](http://www.portofantwerp.be/apec)

**25-29:** ITMMA Public Private Partnerships in Port: Structures, Pricing and Performance Measurement  
 Antwerp, Belgium

[www.itmma.ua.ac.be](http://www.itmma.ua.ac.be)

**27-29:** AAPA Joint Port Operations and Information Technology Seminar, Chicago, USA

<http://aapa-ports.org/programs/education.htm>

**28-29:** The European Sea Ports Conference 2005: Synergies for an EU Seaport Policy – Making the puzzle Match, Malta

[www.espo.be/news/event](http://www.espo.be/news/event)

**28-29:** 3rd Philippine Ports and Shipping 2005, Manila, Philippines

[www.transportevents.com](http://www.transportevents.com)

## May

**2-4:** IPER New Partnership in Port Organisations, Le Havre, France

[info@iper.fr](mailto:info@iper.fr)

**2-13:** APEC IT, EDI and Internet in Transport Business, Antwerp, Belgium

[www.portofantwerp.be/apec](http://www.portofantwerp.be/apec)





# “Keep all that we value, change what we have to”

IAPH president Pieter Struijs welcomed many distinguished guests to January's Tokyo Forum — this is the text of his speech

“Several global trends not only affect our ports, but also highlight the need for transformations within IAPH”

Today, here at the inspiring Keidanren in Tokyo, we are witnesses to the launch event of many worldwide celebrations during 2005 to celebrate the 50th anniversary of our beloved IAPH. And I feel privileged to stand before you as president at the beginning of this memorable year.

In my home country, the Netherlands, a 50th birthday has a very special meaning. We regard the age of 50 as a milestone, a state of maturity to be extensively honoured. This certainly applies to IAPH and we may be proud of that.

Initiated by this Tokyo Forum, the celebrations will move to Shanghai on May 23 and to IAPH's birthplace, Los Angeles, in the first week of October. Besides this, we have regional events taking place in Teheran, London and Nairobi.

Ladies and gentlemen, truly an exiting year for the Association.

During the wonderful welcome dinner hosted by Mr. Fujino, I mentioned the crucial role of the *Japanese Foundation for IAPH* and I will repeat this again: without the foundation's continuous support, IAPH would not have grown into what it is today — and for that we are deeply grateful.

IAPH now represents 250 members in 90 countries and 50 years ago it was born with the following aims: cooperation and friendship between ports and port managers all over the world; a platform for information exchange and networking; the coordination of efforts on international issues of common concern, plus collaborative approaches on any port-related matter.

Those were our aims then and they continue into the future.

In all of our discussions, we acknowledge the fact that our world is rapidly changing. Examples are the ongoing globalization of trade, the relocation of production plants to countries with low-cost labour, the fast development of information technology and the need for reliability, sustainability and security in our ports. I would like to emphasize that several

of these trends not only affect our ports, but also highlight the need for transformations within our Association.

The motto should be: *keep all that we value, change what we have to.*


I am very pleased that we already made good progress. Examples of this are the launch of the new **Ports & Harbors** magazine, the improvement of communication making use of the internet, growing understanding and cooperation between the sub-regions and the impending implementation of the legal database on international maritime conventions.

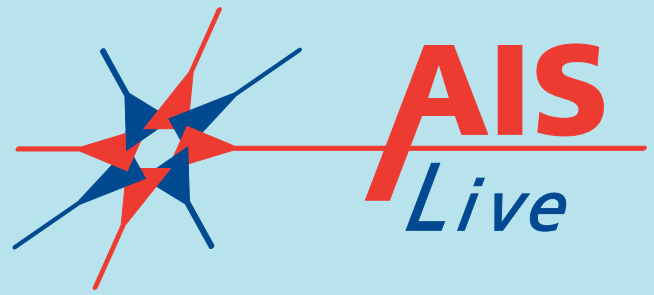
But despite these encouraging results, IAPH is also facing serious challenges.

Most striking? The need for a continuous effort to further increase membership value; to encourage and introduce new working methods and participation with respect to technical committees; to enlarge the profile of IAPH through public relations activities and to address the ever-increasing importance of regional approaches and cooperation with regional port organizations.

Ladies and gentlemen, I see it as a good sign that we all acknowledge the ambitions I've just mentioned. And I'm confident that IAPH is up for another 50 years of taking care of the interests of the port industry.

On behalf of all IAPH delegates, again I extend my thanks and congratulations to those involved in organizing this successful executive committee meeting and anniversary celebration. I also thank the IAPH secretariat for their preparations and valuable efforts and wish all of you present here today an enjoyable ceremony and a very fruitful and informative discussion.

Long live IAPH! 



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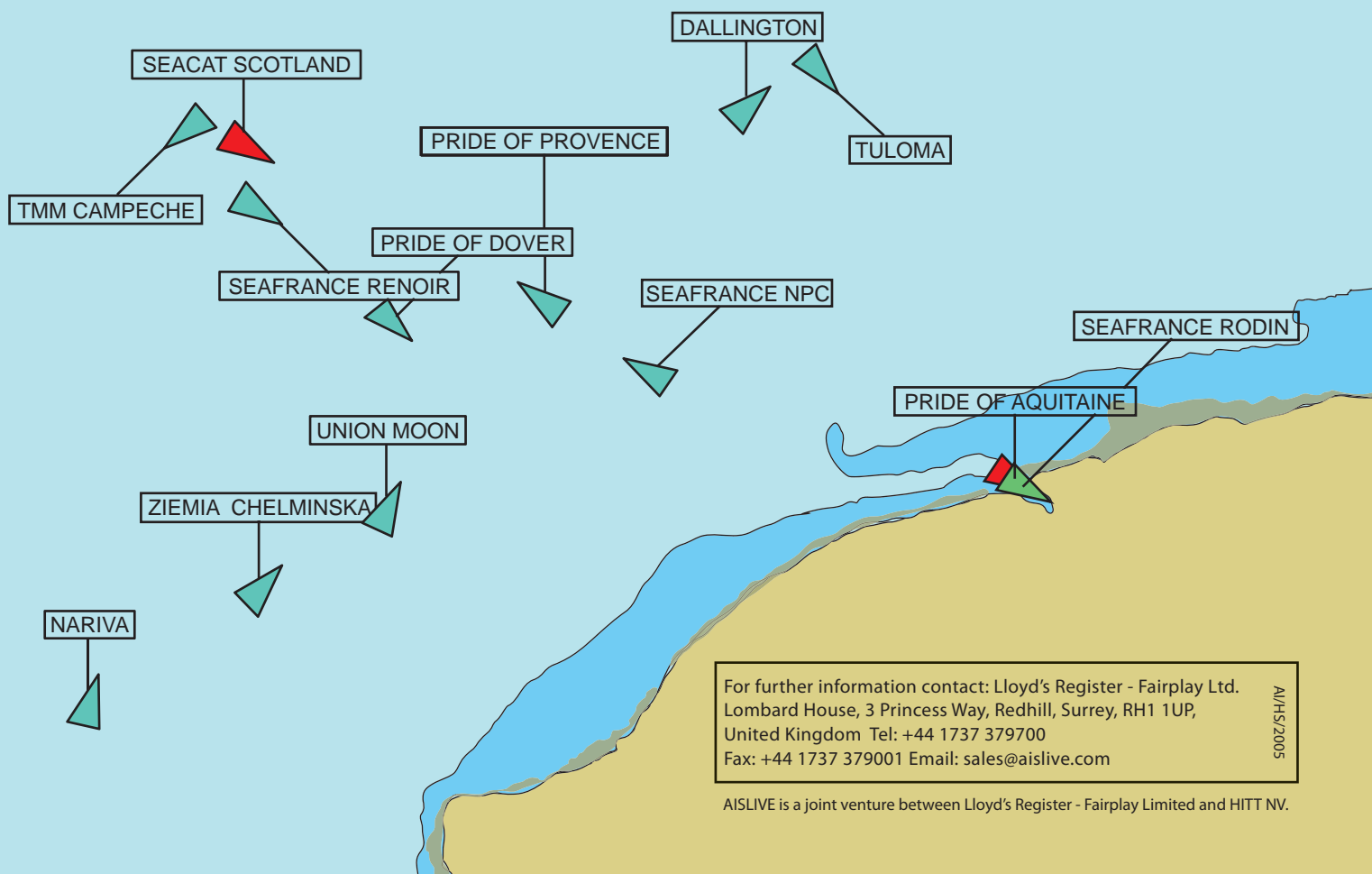
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**m** Mott  
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