



PORTS & HARBORS

Official Journal of the International Association of Ports and Harbors

Emissions indexed

New initiative to help monitor pollutants

Along the Yangtze

Discovering the great river's true potential

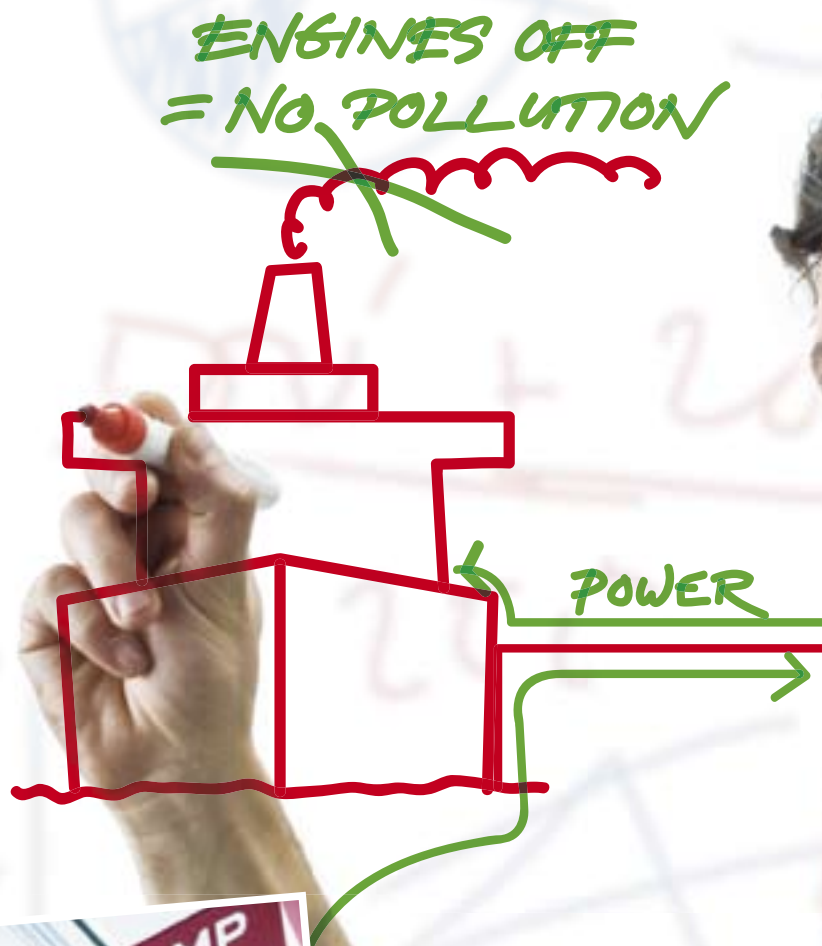
Meeting of minds

Port Louis and Réunion collaborate

On the waterfront

Realigning ports to suit cities' needs

“Fresh thinking can lead to fresh air.”

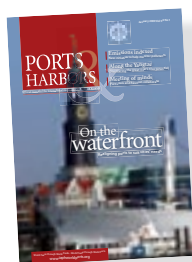


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Museum ship *Cap San Diego* on Hamburg's waterfront. This port city is revitalising the old port into a people-friendly area

Photo:
Dietmar Hasenpusch

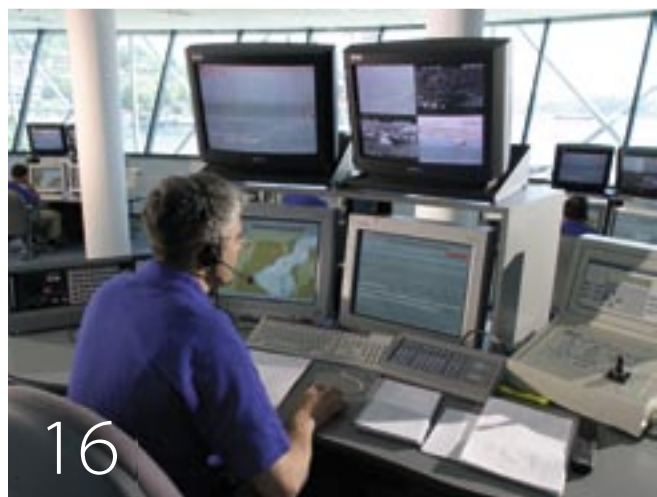
January 2009
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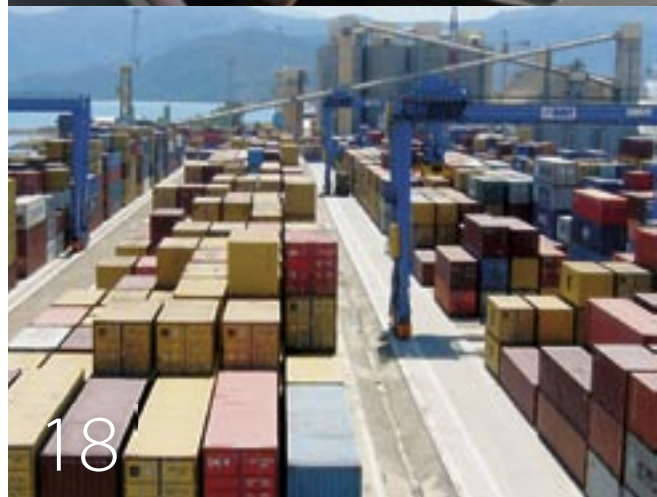
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Stormy climate

We should not allow rough economic weather to blow us off the course of sustainability

Happy New Year! The year 2009 has sailed into the stormy sea of the world economy. Some port executives have already predicted the likely impacts of economic downturn on the port business for this year. Yet, encouragingly, many ports are already preparing for world trade's robust recovery after this turbulent voyage.

Last November, IAPH launched the World Ports Climate Initiative (WPCI) at its inaugural meeting in Los Angeles. We aim to provide a platform for the global port community, encouraging IAPH members and non-members alike to work together to tackle climate change. By running projects involving emission inventories and the use of innovative yard equipment, the WPCI helps ports

around the world develop strategies through sharing best practices and experiences.

A new project is also under way to develop Version 2 of IAPH's *Tool Box for Port Clean Air Programs*, launched in March 2008. This revised version will include the basic components of climate action.

The slogan 'think globally, act locally' certainly applies to port climate action. It is largely up to each individual port, but there are actions

“The slogan ‘think globally, act locally’ certainly applies to port climate action”

that need to be taken on a much broader scale. For example, world ports can join forces to accelerate the efforts of other sectors to reduce their greenhouse gas emissions. The environmental ship index (ESI) – a proposal to index all vessels calling at ports based on their emission performance (see pp36–37) – is just one example. It will be developed further as a project of the WPCI.

If we are to succeed in our efforts on climate change, it is essential that our actions are sustainable. While immediate action is needed, we need to adopt long-term sustainable approaches. Rather than simply enforcing regulations and penalties, we should consider how we can bring benefits to our port users through their participation in climate action, wherever possible in a business-oriented way.

In May this year we will hold a more extensive discussion on our climate change challenges at the 26th IAPH World Ports Conference in Genoa. I look forward to welcoming you all in this historical and beautiful Italian port city. **PH**

Dr. Satoshi Inoue

Secretary General – The International Association of Ports and Harbors

Port updates

RO-RO SPILL LED TO FINE

Liberian-flagged ro-ro vessel *Valentia* was arrested in the Port of Brest, western France, for polluting waters off the Atlantic coast. *Valentia*, carrying about 400 new Renault cars, was arrested after customs officers aboard an anti-pollution aircraft detected a 18km-long, 50m-wide oil spill some 280km off the coast of Gascony. The ship was allowed to leave only after the owners paid a fine of €300,000 (\$374,800).

EGYPTIAN AMBITION

Dutch engineering company DHV has released its masterplan for the Port Said East development, Egypt. The total area to be developed is about 120km² – about the size of Rotterdam.

The first berth of its expansion programme will be operational in 2010 and the whole expansion will be complete by 2011, taking capacity to 5.1M teu. The facilities to be built include an industrial complex. The existing Suez Canal Container Terminal at Port Said handled its two-millionth teu in November.

CHEMICAL BOOST

Polish chemical company Zakłady Chemiczne Police plans to spend €32M (\$40M) upgrading its Baltic Sea docking port in Szczecin. The work will include a new rail link to the docks and modernising the port's access road. Tenders are being considered for the four-year scheme to make Szczecin the Baltic's largest loading port.

LOW-SULPHUR REWARDS

Vessels switching from residual to low-sulphur distillate fuel are to be paid \$1,500 each time they call at Seattle.

Port commissioners approved a \$500,000 package, which will be used to fund the scheme. The port authority said container ships that call at least five times a year – accounting for about 550 of the 1,038 vessels that visit the port annually – will be eligible for the payment.

Seattle joined neighbouring ports of Tacoma and Vancouver by adopting the Northwest Ports Clean Air Strategy, which aims to reduce diesel and greenhouse gas emission in the area.



Photo: Port of Helsinki

Vuosaari Harbor is all set to become an important link in Finland's logistics chain

Helsinki's new harbor

A new port, designed to maximise efficient logistics, opened in Helsinki, Finland, on 28 November.

At the opening ceremony, Prime Minister of Finland Matti Vanhanen proudly described the 150ha site as "the most modern harbor in the world".

Vuosaari Harbor, costing approximately €400M (\$546M), boasts a state-of-the-art approach to linking up different elements of the logistics chain, saving time and money.

Finnish logistics company Sponda runs the facilities at the PortGate. This is the harbor's nerve centre and comprises the gatehouse, the Hansa Terminal, a parking space and a service building that will include shops and conference rooms. The gatehouse is occupied by customs, Port of Helsinki Authority and terminal operators.

The rows of buildings are interconnected by traffic zones. Cargo is transported directly from the ships to the terminal for further handling. The offloading zones have easy access to the

street grid of the main harbor centre. Outbound cargo has a quick exit route from the harbor, either via a dedicated freight railway line or a dual-carriageway road. It is expected that after unloading, goods will only spend a few hours at the harbor.

The aim is to cut down on unnecessary goods transfers, the return transport of empty containers and traffic emissions.

The harbor serves as Finland's main gateway for unitised cargo; one-third of all Finnish foreign trade moves through the area. Imports include food, consumer and durable goods such as cars, industrial raw materials and semi-manufactured goods. Exports include forest-based and engineering products.

Leading Finnish stevedoring company Stevedco runs a terminal in the western part of Vuosaari. The company expects to handle some 400,000teu and 150,000 trailers every year. Finnsteve's facility covers 66ha in the eastern part of the harbor, and Multi-Link Terminals will also have space.

There are 15 ro-ro berths and lo-lo vessels are also served. Some vessels will carry passengers, but pure passenger ships will continue to use the south and west harbors close to Helsinki city centre.

A branch line of around 19km long connects the harbor to the rest of the railway network. The track is used solely for freight traffic and will eventually handle between 16 and 20 trains every day. Most of the railway line has been constructed in tunnel.

The harbor road is about 2.5km long. It is a dual carriageway and cargo traffic is directed to the national road network, making use of a 1.5km-long double tunnel. The use of separate tunnels in each direction increases safety.

"It's one of the biggest public infrastructure projects ever undertaken in Finland," said Jussi Pajunen, Lord Mayor of Helsinki. "It will create wealth and welfare for the entire nation."

Some 2,500 jobs have been created at the harbor, a figure that is expected to rise to around 4,000 over the next few years.

Log-In ramps up terminal operations

Brazilian coastal shipping line Log-In Logística Intermodal announced last year that it intends to spend a total of Reais49.8M (\$21M) constructing a new container terminal and expanding an existing facility.

Log-In said has allocated Reais28.4M (\$12M) for upgrading and expanding its Terminal Vila

Velha (TVV), Vitória, Espírito Santo state. Another Reais21.4M (\$9M) will be invested in developing a new intermodal terminal at Paulínia, in São Paulo state.

Log-In operates eight container vessels along the Brazilian coast and is moving forward with its Reais700M (\$297M) order for five 2,700teu box ships to be built at

the EISA shipyard in Rio de Janeiro.

The new intermodal facility at Paulínia is located close to a number of Petrobras installations and a hub for the ethanol trade and agro-industrial sector in Brazil.

TVV has two 232m-long berths and is linked to the dry port of Cerrado by Log-In's Trem Expresso fast rail freight service.

US port partners squeezed

Financial buyers who deal with US port authorities are suffering from the credit crisis and serious slumps in asset valuations, according to Dave Sanborn, senior VP and MD Americas at DP World.

His comments at the TOC Americas conference in November came as US port authorities on the east and Gulf coasts face a dilemma: if they fail to expand now, they risk missing the boat when the widened Panama Canal opens in 2014.

Sanborn also warned of pressures on carrier partners. "When markets fall, lines often raise cash by selling non-core terminal assets," he explained, revealing: "At least one line is reportedly in the process of selling North American terminal assets to generate cash to cope with impending losses from its liner activities."

In the US, political pressures effectively preclude deals with foreign common-user port operators. Sanborn told the conference that the top three such companies – Hutchison, PSA and DP World – handle one of every three containers worldwide – but none in the US.

Financial institutions acquired numerous US terminal assets during a flurry of transactions in 2006–07, paying historically high valuations.

Sanborn stressed that DP World "has no plan at present to re-enter the US market", but argued that "over the next two to three years, the pendulum [in the US] must swing back to the global common-user operators, which will be in the strongest position to take on new projects".

In the meantime, he said, US port authorities need to embrace a new approach in the light of the financial crisis. Port authorities should rely on "much



Photo: Greg Miller

Dave Sanborn speaking at TOC Americas event

more conservative assumptions" for growth and should seek lower upfront fees from private-sector terminal partners. An operator's ability to pay royalties are lowest in the early years of a project, he explained, so port authorities should consider deferrals and escalations to make projects viable in the short term.

"I am not suggesting that port authorities slow down or halt spending; just the opposite," he clarified. In fact, Sanborn believes that port authorities on the US east and Gulf coasts should increase spending on Panama Canal-related expansions.

"Ports that fail today to plan for the implications of this transformational project will undoubtedly suffer over the medium and long term," he predicted.

No time to waste

The Port of Hamburg was the setting for November's Second Symposium on the Treatment of Waste Water and Liquid Waste on Ships (SOWOS-2), organised by the German Marine Insurance and Ship Safety Association, the

German Shipowners Association and the RWTH-Aachen University-based Development and Assessment Institute in Waste Water Technology.

Over 80 delegates from Scandinavia, the US and countries

throughout Europe took part, with presentations covering legal, practice-oriented and scientific views that offered an excellent basis for discussion. And this year's SOWOS-3 will also be held in Hamburg, on 13 November.

Port updates

LIFT FOR GEORGIA'S PORTS

Georgia Ports Authority is increasing capacity at the Port of Savannah to attract additional cargo. Four additional super post-Panamax cranes are expected to arrive in early February and will be in operation in May. Additionally, KCI Special Cranes Corporation of Finland has completed construction of 14 rubber-tyred gantry cranes for the Port of Savannah.

BULKS LEAD FOS REVIVAL

Cargo throughput at the port of Marseilles Fos totalled 72.9M tonnes at the end of September 2008. The 1% rise on the previous year's figure came despite an 11% drop in general cargo to 11.68M tonnes – largely attributable to three months of industrial action over the French government's port reform proposals.

Container volumes finished 17% down for January–September on 6.25M tonnes and 619,842teu. Conventional trades fell 9% to around 2M tonnes, although ro-ro traffic was up 4% at 3.4M tonnes.

The port is to invite tenders for the installation of a solar-powered electricity network with solar panels on more than 135,000m² of roof space – the largest such area in France.

QATAR'S NEW PORT

Design work is under way for a new commercial port that is eventually expected to replace Doha Port. To be located between Mesiaeed and Al Wakrah, the port should open in 2014. The full cost of the 20,000m² project is estimated at \$3.84Bn.

SAIGON ON THE MOVE

Saigon Port is on course to move to its Cai Mep-Thi Vai in central Vietnam, according to the president of the Vietnam Seaports Association, Ho Kim Lan. "There is no problem with cashflows whatsoever," he said. "There are five projects associated with the new port. Three will be completed in mid-2009 and another two by 2010."

The multimillion-dollar Cai Mep-Thi Vai project and a planned terminal in Hiet Phuoc are eagerly anticipated as container throughput at Saigon Port rose to 40,000teu in 2008.

Port updates

CHINESE CRANES

Shanghai-based crane manufacturer ZPMC has delivered two super post-Panamax gantry cranes to NFTI, the container terminal operator of the Port of Dunkirk. The new arrivals, able to work up to 23 rows of containers across, will be added to the existing three cranes on the deepwater quay.

TACOMA TRACKS ITS BOXES

The Port of Tacoma is testing a GPS tracking device to learn more about what happens to containers when they leave the Tacoma waterfront. It will give the port a better understanding of inland rail issues. The system will help the port work with railways and shippers to improve the speed and reliability of freight.

Rob Collins, Port of Tacoma manager of transportation and supply chain planning, said: "People have assumptions about cargo scheduling, routing and delivery, but when you dig into the data, many of those assumptions may turn out to be false."

Companies taking part in the project are BNSF Railway, Yang Ming Line and Safefreight Technology.

INVESTMENT IN MAPUTO

South African logistics and freight group Grindrod will invest heavily in the Port of Maputo, Mozambique's leading maritime trade hub. The proposed \$500M investment applies to containers, cars and bulk facilities.

This year, the company plans to increase the throughput capacity of Maputo's box terminal from the current 100,000teu to 400,000teu. Car handling capacity will also quadruple, to about 250,000 vehicles a year.

NEW ESPO DIRECTOR

The recently elected European Sea Ports Organisation (ESPO) chairman, Victor Schoenmakers commented on the latest evolutions in the ports sector that have fundamentally changed the role of port authorities. On the eve of ESPO's 15th anniversary, he said: "Whilst some predicted years ago that port authorities would become superfluous, I believe we are witnessing today a renaissance of the Port Authority in Europe."



Photo: Port of Long Beach

Shore power pioneer: Long Beach Bridge begins Port of Long Beach's onshore power revolution

Plugging in to cleaner power

'K' Line's *Long Beach Bridge* became the first vessel to use shoreside power at the Port of Long Beach when it plugged in to the onshore supply at the International Transportation Service terminal in November 2008.

The \$8M project is just the initial part of a 10-year \$800M scheme to install onshore power supply at

the port's 30+ container berths.

To encourage container lines to use shoreside power, all new leases issued by the Port of Long Beach now stipulate that tenants have to begin equipping their ships with the technology. 'K' Line is installing facilities in a further five ships.

At the neighbouring Port of Los

Angeles, shoreside power was introduced last year.

The two ports are becoming deeply embroiled in lawsuits over their plans to phase out older cargo vehicles. Eco-activist groups have begun legal action against the Federal Maritime Commission, which is trying to stop the programme on anti-trust grounds.

Great Yarmouth moves up a league

The Port of Great Yarmouth, on England's east coast, is on target to receive ships in the first quarter of 2009. Container operations are scheduled to start by mid-year. The outer harbor at Great Yarmouth is expected to provide the answer to some of the UK's ports congestion problems.

The £60M-plus project, set to serve a wide hinterland and play a major role in the revitalisation of a whole region, has been given an operating title of EastPort UK.

Its position at the easternmost point of the UK makes the new port well placed for fast crossings to mainland Europe, knocking hours off sailing times. EastPort UK doesn't have the waiting time (up to seven hours in some cases) that some other UK ports experience.

An integral part of the development is a container terminal capable of taking shortsea and midsea vessels up to 10m draught. This is a joint venture between PSA-HNN (60%) and International Port Holdings (40%), which has been responsible for EastPort UK since its subsidiary, Great Yarmouth Port Company, took over operation of the Great Yarmouth Port in May 2007.

The container terminal will have a 400m quay supported by new ship-to-shore gantry cranes and an initial capacity of 250,000teu per year. The infrastructure will be able to handle vessels in the 1,800–2,200teu range, enabling the terminal to serve not only intra-European trades, but also regional carriers in the eastern

Mediterranean and Caribbean/Central America markets.

The outer harbor is not just for shortsea and regional container shipping. It has been designed as a multi-purpose facility and will be able to accommodate a large range of vessels. The new intermodal hub could certainly attract the latest generation of freight ferries, ro-pax ferries and trade car carriers as well as energy decommissioning activities.

Great Yarmouth is already England's busiest port in offshore support. The outer harbor will give a big boost to operations, increasing capacity and range of activity. EastPort UK will be well placed to service all the elements of a rapidly evolving industry as investment in renewables grows.

Oil recovery network gets reinforcements

The European Maritime Safety Agency, which is tasked with helping EU states fight ship-sourced pollution, continues to build up its oil recovery fleet. In November, EMSA awarded €3.5M-worth of contracts to two European companies to provide environmental response services in the North Sea and the Black Sea.

Belgium-based DC Industrial will make available two hopper dredgers to cover the North Sea. The Dutch-flagged *Interballast III* (storage capacity 1,886m³) and *DC Vlaanderen 3000* (storage capacity 2,744m³) will be pre-fitted and specially equipped for oil spill recovery activities.

In the Black Sea, Grup Servicii Petroliere's platform supply vessel *GSP Orion*, which normally services oilfields off the Romanian coast near Constanta, will be placed on standby for anti-pollution use.

"I am particularly pleased that the agency has been able to contract response capacity for the Black Sea, as this was one of the main target areas this year and was not covered previously," said EMSA's executive director, Willem de Ruiter.

"Three fully equipped vessels with a combined additional response capacity of 6,056m³ and costing in the region of €3.5M for three years represents good value for the agency," he added.

In December, Spanish owner Remolcanosa's supply vessel *Ria de Vigo* was added to the standby pollution response fleet, covering Europe's Atlantic coast area, from Porto, Portugal, to Brest, France.

The vessels carry out normal



De Ruiter: the new oil spill response contracts represent "good value"

commercial work until called upon to respond to a spill. The four are expected to take up their new roles in the first half of 2009 and are under contract for three years.

Port updates

AFTER THE FLOODS

Hamburg Süd's ro-ro *Independente* became the first large vessel to berth at the twin Brazilian ports of Itajaí and Navegantes since catastrophic floods at the end of November.

Despite that, the area remains months away from being able to resume normal operations, with draught reduced to 7–8m in places.

The 1,341teu, 173m-long *Independente*, operated by Aliança Navegação, berthed at the Portonave-Navegantes facility after loading containers at Itajaí, on the opposite bank of the River Itajaí-Acú.

Portonave's operations director Rene Duarte said: "We can take these smaller vessels for now, and the *Independente* as long as it doesn't load more than 400 containers, and that is the draught restriction we have to work with until dredging goes ahead."

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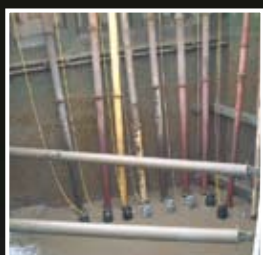
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Dredging

INTRACOASTAL DREDGING

The foundations have been laid for a \$7.5M dredging project along Fort Lauderdale's portion of the Intracoastal Waterway. Permits have been applied for, but no date has been set for the main dredging work itself.

The project will also include the dredging of the Dania Cut-Off canal and the New River.

"This project is really needed so the infrastructure in Broward County can keep up with the size of the boats," said Susan Engle, president of EnviroCare and a member of the Florida Inland Navigational District.

LATVIAN EXPANSION

Dredging work is set to start shortly at the Port of Liepaja, with depth being increased from 10.5m to 12m. The project, which will enable the port to handle Panamax- and handymax-sized vessels, is set to finish in the second half of 2010.

CANAVERAL GOES DEEPER

A \$7.8M project to widen and deepen the west turning basin at Port Canaveral is under way. The port is preparing for the arrival of four new 4,000-plus passenger cruise ships later this year. "With this project, Canaveral has positioned itself as a leader in the next era of cruising," said Stan Payne, Port Canaveral's CEO.

MORE DEPTH NEEDED

Sindh Fisheries Ministry has asked the Karachi Port Trust to carry out dredging at Karachi Fish Harbor to deepen it to 4m in a move to avoid the grounding of boats. The harbor has not been dredged since its construction in 1996, and the draught has since been reduced to 2.7m.

DREDGING FOR SIZE

The Nigerian Ports Authority (NPA) has agreed a joint venture with Lagos Channel Management and Bonny Channel Management to carry out the dredging of the Lagos and Onne channels. The work will allow larger vessels to enter Nigeria's waters. It was announced by NPA's managing director, Mallam Abdulsalam, at IMO's World Maritime Day.



Photo: Dietmar Hasenpusch

All transport sectors should rethink fuel surcharge policies, believes ESC

exacerbates the shortages of service capacity that already exists in the road freight sector.

"The road freight sector and customers were not the only ones to experience the pain of soaring fuel prices: in the air freight and sea freight markets, shippers bore a major slug of the cost increases through the imposition of fuel surcharges by shipping lines and airlines alike," said ESC secretary general Nicolette van der Jagt.

On a more positive note, the airline Air France-KLM has introduced a new system of fuel surcharges. The airline has adjusted the base price of oil to a more realistic level (based on more recent oil price history) and moved much of the fuel price below this rate into the overall freight rate. The result is that surcharges are less and customers are able to negotiate a freight rate that includes more of the fuel cost element within it.

Commenting on this, Nicolette van der Jagt said: "Shippers aware of this change have largely welcomed the move: they believe that far more of the fuel price is negotiable by lumping it together with other operating costs of the airline within the main freight rate."

Van der Jagt added: "The positive response from shippers to the move must surely send a strong signal to others, across all modes, in these harsh economic times, to look closely at their surcharge structures and policy."

Act now on fuel

Now is the best time to put in place practices that could safeguard shippers and the freight industry from future rises in fuel prices, according to the European Shippers' Council (ESC).

The ESC, which represents the freight interests of some 100,000 companies across Europe, has produced a paper that it expects to open up debate on appropriate mechanisms to provide temporary relief for road transport companies that are brought close to collapse

by rapidly escalating fuel prices.

The paper explains that these companies are not always able to pass on the full costs to their customers because they are under pressure to hold back cost rises within their supply chains. For many companies operating at the margins of profitability, or dependent on low-cost transport, any sudden and prolonged cost increases can prove disastrous. Equally, if transport service providers go out of business, this

Cruise co-operation can bridge the Gulf

A Gulf association is key to the development of the growing cruise industry in the region. That was the message from speakers at the Sixth Seatrade Middle East Cruise Conference in Dubai.

Pier Luigi Foschi, chairman and CEO of Costa Crociere – which has three cruise ships based in Dubai for the winter – said a permanent forum was needed to debate issues such as port infrastructure, shore excursions and immigration formalities.

Michael Bayley, the international senior vice-president for Royal Caribbean Cruises, added: "A body such as the European Cruise Council or Asian Cruise Association would be an excellent vehicle for

collective development of the industry in the region, to include representatives from government, tour operators and cruise lines themselves."

Delegates called for development of more infrastructure and promotion to widen the appeal of the Gulf beyond Dubai. The managing director of Hapag-Lloyd, Sebastian Ahrens, said more emphasis should be placed on culture to attract tourists.

"While the Gulf has all the right ingredients for cruise, a lot more has to be done – there is a lot of work ahead to make the region boom as a premium cruise destination, with more on the itinerary than Dubai and Abu Dhabi," he said.

Spatial planning to safeguard sustainability

The European Commission's *Roadmap for marine spatial planning*, published on 25 November, includes thoughts on how to prepare for such climate change impacts as rising sea levels, floods, altered marine ecosystems and investments in coastal protection.

"Maritime spatial planning is a key tool for a more rational use of sea areas and for the sustainable development of the maritime economy," explained Joe Borg, commissioner for fisheries and maritime affairs. "It is the only way in which we can provide a predictable framework for economic investments in offshore areas and is a precondition for striking a balance between the vested interests of different maritime activities while preserving the marine environment".

Development of a common approach to maritime spatial planning forms part of the European Union's Integrated Maritime Policy. Four stakeholder workshops on the subject are planned for this year along with pilot projects aimed at promoting cross-border co-operation.

Sumatra eyes Asian cargo

Indonesia will begin construction of Gabion Container Terminal (TPK), at the Port of Belawan, in North Sumatra.

No dates has been announced for the start of construction, but it is understood that the Rupiah 25trillion (\$2Bn) project will have the potential to attract cargo away from Singapore and other ports along the Malacca Strait to Belawan.

"Actually, Belawan has great prospects and is now sought by international shipping companies to dock their mother vessels. But because of limited facilities, international ship operators still choose Singapore and Tanjung Pelepas in Malaysia," said Harry Susanto, director of PT Pelabuhan Indonesia.

He told *Ports & Harbors* that the project will last 10 years. The first stage includes the construction of docks along a 700m-long quayline, dredging channels and the procurement of cargo handling equipment. The TPK project is said to have received the approval of Indonesia's National Development Planning Agency (Bappenas) and the Department of Transportation. The port is being built to cater for fifth-generation ships with a capacity of 5,000teu.

Reportedly attracted by the revenue potential it foresees in the port, the Islamic Development Bank (IDB) has agreed to provide a \$130M loan to finance the initial stages of development.

Belawan is expected to play a major role in crude palm oil (CPO) exports – Indonesia's key non-oil export. Upon completion of the project, it is provisionally estimated that 5M teu, out of an international outflow of 40M teu traversing the Malacca Strait, will change hands at Belawan. It will make the port an alternative to Singapore and Tanjung Priok.

Susanto said the flow of international containers through Belawan is still growing.

UN piracy resolution

The UN Security Council passed resolution 1848 on piracy, which is the legal backing for naval forces and military aircraft patrolling pirate-infested waterways, especially in the Gulf of Aden.

The resolution was passed on 3 December 2008, and according to the Internationally Transport Workers' Federation (ITF) is said to be an extension of resolution 1816, which expired in early December.

ITF general secretary David Cockroft welcomed the resolution: "This is a very welcome response to the efforts we've all made to get this resolution, and the action it legitimises, approved".

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For decision makers and their advisors in government, port and harbour authorities, off-shore companies and other organisations that have to execute dredging projects, the International Association of Dredging Companies organises the International Seminar on Dredging and Reclamation.

The 32nd Seminar will take place in Delft, Monday 15th to Friday 19th June 2009. An important feature of the seminar is a trip on a trailing suction hopper or cutter to visit a dredging project being executed in the given geographical area. This gives the participants the opportunity to see dredging equipment in action and to gain a better feeling of the extent of a dredging activity.

Highlights of the programme are:

- Day 1 Why Dredging? The Need for Dredging/ Project Phasing
- Day 2 What is Dredging? Dredging Equipment/ Survey Systems (includes a Site Visit)
- Day 3 Cost, Pricing and Contracts (includes a visit to a Dredging yard)
- Day 4 Preparation of a Dredging Contract
- Day 5 Dredging Projects

The cost of the seminar will be € 1.950,-; this fee includes all tuition, VAT, seminar proceedings and workshops and a special participants dinner during the week but is exclusive of travel costs and accommodation. Assistance with finding accommodation can be given.

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

For more information, please contact Mr. Frans-Herman Cammel at info@iadc-dredging.com or visit www.iadc-dredging.com

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Cash & Cargo

BUSINESS AS USUAL

South America's biggest box terminal operator is ignoring the international credit crunch by going ahead with investment plans for the southern Brazilian port of Imbituba.

Santos Brasil already operates box terminals in Santos and Vila do Conde and participates in the Multi-Rio terminal in Rio de Janeiro. Now it will spend Reais283M (\$123M) on the Tecon Imbituba terminal, which it bought from Wilson, Sons last March.

PLANS FOR RIJEKA

The World Bank has approved an €84M loan for Croatia's Rijeka Gateway II Project. It is part of a scheme to make the port city of Rijeka more competitive, as it is located at the gateway for 'Corridor VB', connecting the Adriatic coast with other parts of Croatia and Europe.



Dinesh Lal, director of GTI, at the centre's opening ceremony

students experience of working in a terminal. The intention is to develop students into world-class maritime professionals.

Trainees have access to audio-visual equipment, an IT room and two classrooms capable of seating a total of 55 people.

"This centre is designed to further equip and develop the talent into a world-class workforce," said GTI chief executive Arvind Bhatnagar.

The high-tech training centre includes a simulator for three types of crane. The 14-strong training staff give courses in operational equipment handling, container lasher training and refresher courses for crane operators to upgrade their skills.

Gateway Terminals India is a joint venture of AP Møller-Mærsk and Container Corporation of India.

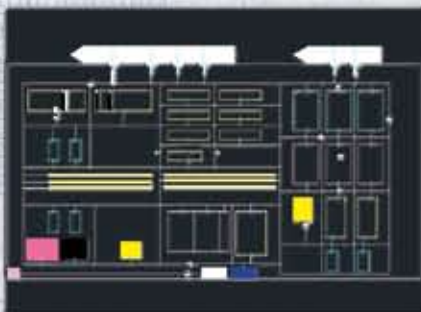
India's world-class training centre

India's maritime industry can look forward to a world-class workforce in the future with the launch of a new training centre.

Gateway Terminals India (GTI)

has opened a 'talent development centre' on its campus. It is claimed to be India's first in-house training facility for the maritime industry.

The training centre will give



Computerised simulations are performed to determine equipment requirements and most efficient yard configuration



Civil engineering activities. Work begins on strengthening the quayside with steel-reinforced concrete



Specification, acquisition, delivery and installation of all equipment for the terminal



Before: A conventional multi-purpose port



Port benchmarking proposed

Motorways of the Sea (MoS) status should not be given to a line that serves ports that are underperforming against benchmarks for efficiency and connections, recommends European co-ordinator for Motorways of the Sea (MoS) Luis Valente de Oliveira.

The recommendations were made in a report presented to European Commission vice-president Antonio Tajani in October. Professor De Oliveira, a former Portuguese transport minister, is one of the eight European experts responsible for the co-ordination of TEN-T (Trans-European Network for Transport Program) priority projects.

The 24-page report covers the main factors that influence the sea leg of the transport chain in the European Union and its

neighbouring countries. Attention is paid to the role of ports in the development of MoS and identifies a list of quality indicators for MoS status.

De Oliveira recommends that a call for expressions of interest into becoming a MoS port or line is launched on the basis of an on-line benchmarking questionnaire producing so-called 'traffic-light' results. "MoS status must be seen as a reward for efficiency, for environmental performance or for concrete plans to achieve a given benchmark within well-defined delays," the report says.

TEN-T funding should focus on infrastructure investments that benefit the whole logistics chain – for example, improvement of infrastructure both in ports and hinterland connections. The co-ordinator, however, does not think

that road access to ports should continue to benefit from European co-funding.

De Oliveira recommends that member states and sector players in the Mediterranean create better hinterland connections with more efficient management of port operations. He also highlights the need for employees in monopoly services, such as crane drivers, dockers, pilots and personnel operating locks, to be flexible.

The report also identifies the need for a long-term step-by-step study into origin and destination of freight in Europe and the production of an atlas of European ports, outlining their main characteristics in hinterland connections.

The report can be downloaded from: http://ec.europa.eu/ten/index_en.html

People

NEW APPA PRESIDENT

Daniel De Souza has been appointed full-time president of the Paranaguá Port Authority, succeeding the former incumbent Eduardo Requiao.

Known as something of a maverick, Requiao – appointed in January 2002 by his brother Roberto, governor of Paraná state – was forced out of office by new anti-nepotism laws.

PROMOTION FOR PYRON

Cliff Pyron has been named chief commercial officer for the Georgia Ports Authority (GPA), with effect from 1 December 2008.

Before joining the ports authority, Pyron served as vice-president of sales for NYK Line in New York. In that post he was responsible for all NYK Line international commercial liner activity in the eastern half of the United States.



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Come together for climate change



It's time for global ports to collaborate on climate change, believes **Peter Mollema**, director of port planning and development at Port of Rotterdam Authority



Many opportunities exist for ports to become involved in combating climate change. Over the past year initiatives and proposals have been created to provide guidelines and benchmarks for any port wishing to reduce its emissions. Yet at the moment only a few ports are actively involved.

In July, the first 55 ports committed themselves to the C40 World Ports Climate Declaration (see box opposite) – a step that should eventually lead to involvement by the thousands of ports that serve maritime trade around the globe.

There are various reasons why ports may choose not to act right now. Two concerns frequently expressed are the costs involved – often associated with fear of losing customers to competition – and scepticism about the global climate challenge in general. Conversely, investing in greenhouse gas (GHG) emission reductions offers ports multiple benefits, including: improvement of city-port relations, reduction of environmental constraints and increased port competitiveness.

Listed below are seven

examples of sound competitive port management strategy that also lead directly to reduced GHG emissions. They show that the art of GHG reduction really pays off in the longer term and should be regarded as a core business for ports.

- Reducing energy consumption, with cost-related savings for the port authority and port-related industry.
- Implementing measures to improve air quality – critical for port expansion.
- Improving port hinterland accessibility, by encouraging a shift from road to barge, railways and shortsea shipping, and by stimulating collective transport of port workers.
- Introducing 'smart' logistics, minimising operational inefficiencies.
- Facilitating a transition from oil-based energy to more sustainable energy sources (starting a new energy infrastructure could take decades to build).
- Encouraging co-siting, to find energy synergies between 'neighbouring companies'.
- Improving the industry's attitudes towards sustainable innovation.

Given these benchmarks, many ports are already very active in the field of greenhouse gas reduction.

The World Ports Climate Initiative (WPCI) – a

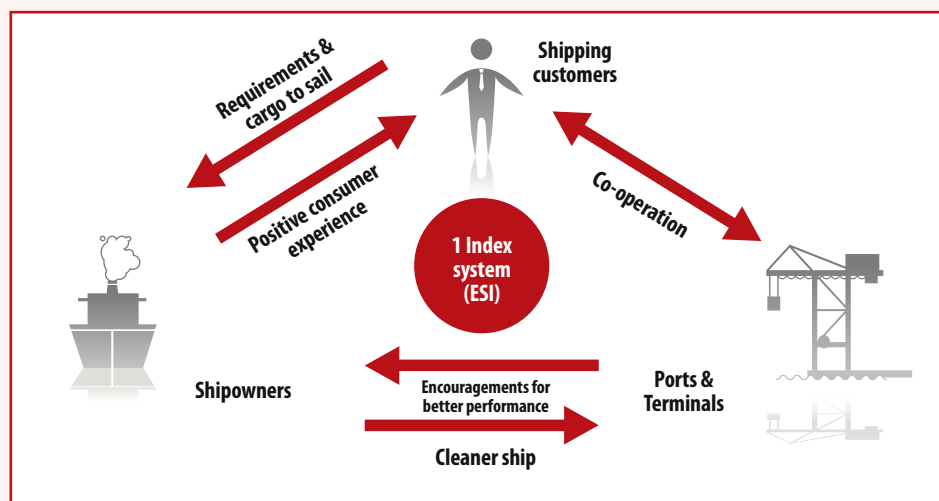


Photo: Aeroview, Dick Sellenraad

Clean sailing... Port of Rotterdam is one port leading the way in the fight against climate change



Photo: Joachim Affeldt



voluntary initiative encouraged by IAPH – has been created to stimulate further action. Currently, WPCI entails six lead projects: carbon footprint management, onshore power supply, environmental ship indexing, clean terminal equipment, energy efficiency and sustainable lease contracts. New project proposals were suggested at a round table meeting in November on modal shift, low-carbon fuels, alternative power and cost-benefit analysis (see box and page 45).

World ports need to be engaged in global collaborative action to reduce air emissions from shipping. The Port of Rotterdam, in association with others, is creating an Environmental Ship Index (ESI) to indicate the

emissions performance of seagoing ships (see page 36). Focusing on air quality pollutants and GHGs, this index will allow ports to promote clean shipping by rewarding or penalising ships according to their emissions performance. Ports will thus have a very effective instrument that is easy to implement and suitable for all sizes and types of facility. It is hoped that ESI will be adopted worldwide, as part of the WPCI, and will have a significant impact on the environmental performance of world shipping.

The ESI is considered a practical further step that will enable the global port community to take its climate obligations seriously. It is a step that most ports should be able to take. **PH**



Photo: Dietmar Hasenpusch

Operations under way on the River Elbe



Photo: Helene Misser

Crane capacity... one of Port of Rotterdam's many terminals

Take the initiative

The C40 Large Cities Climate Summit held in New York in May 2007 was designed to help mayors of the world's largest cities deliver action in combating climate change. It was Mayor Opstelten from the city of Rotterdam who offered to host the C40 World Ports Climate Conference in July 2008. Under the title *World Ports For A Better Climate* this conference resulted in the C40 World Ports Climate Declaration.

Fifty-five ports from all over the world committed themselves to work jointly to reduce the threat of global warming. A follow-up implementation meeting in Los Angeles in November 2008 marked the starting point of the World Ports Climate Initiative (WPCI). From this global platform, launched by IAPH, ports have begun to engage in global collaborative action to reduce greenhouse gas emissions.

There is a critical need to involve as many ports as possible. WPCI will focus on developing new measures, practical management tools and sharing of technical information. Its aim is to improve the climate for the benefit of people, the environment and the economy.

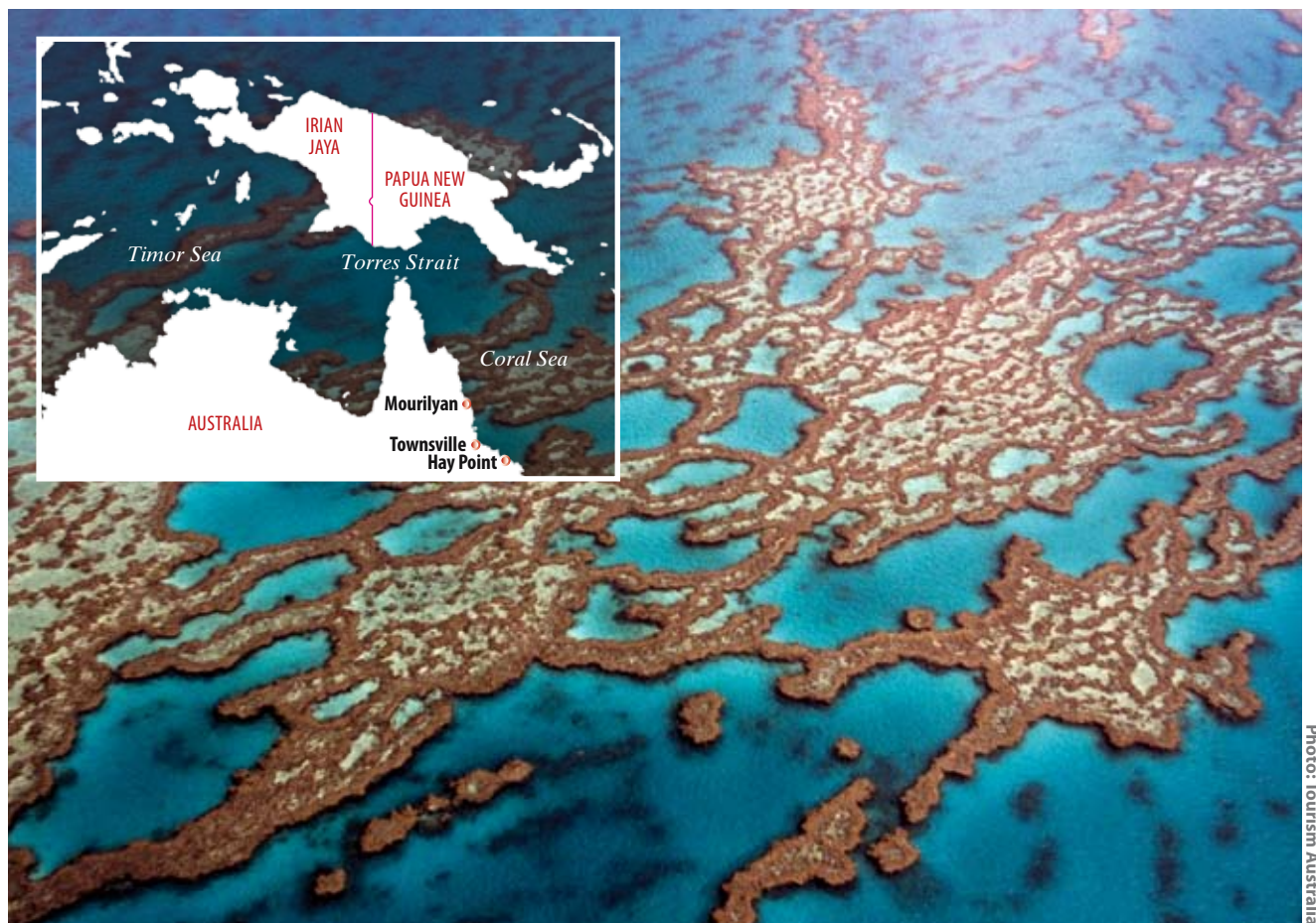


Photo: Tourism Australia

Vessel traffic view in Torres Strait

Australia will integrate the Great Barrier Reef VTS with three regional ports as it aims to create more shore-based control, reports journalist **David Worwood**

The Great Barrier Reef islands, which run into the Torres Strait

Marine safety authorities and ports worldwide are keenly aware of the safety and pollution risks posed by increased shipping traffic and are turning to technology for assistance. Australia – where environmental sensitivities are especially acute – boasts one of the globe's most extensive coastal vessel traffic services. The country's Great Barrier Reef and Torres Strait Vessel Traffic Service (ReefVTS) is specifically designed to protect the region's fragile marine ecosystems.

The federal Australian Maritime Safety Authority (AMSA) and state Maritime Safety Queensland (MSQ) agency, which jointly operate ReefVTS, have been upgrading the service over the past four years and giving serious thought to its organisation.

As a result, in 2010 the ReefVTS headquarters, known as ReefCentre, will relocate from the rather remote coal port of Hay Point to a new building in the regional centre of Townsville, which is closer to the

Great Barrier Reef. The move is in recognition of the increased importance allocated to protection of the marine environment. This new, much larger, purpose-built centre will allow for greater integration with local port vessel traffic systems (VTS). For example, it will monitor traffic negotiating the reef as well as the VTS for the ports of Townsville, Abbot Point and Mourilyan, creating a wider overview of the area.

According to ReefVTS manager Neil Trainor: "Staff at the centre will rotate from port [VTS] to reef [VTS] during their shift." There is also a plan to construct an emergency back-up VTS centre, either in Cairns, Hay Point, Gladstone or Brisbane. About 8,000 ship transits occur in Great Barrier Reef waters each year. A further 2,000 fishing vessels, 25,000 leisure craft and 1,500 tourist vessels ply an area once described by Captain James Cook as an "insane labyrinth".

In late 2004, the region's 'ReefRep' ship reporting system became part of the new VTS's ship monitoring

“Don’t forget the basics ... Emerging technology is good but don’t forget to look out of the [bridge] window”

and surveillance remit – the ReefVTS. The old ReefRep reporting systems had been operating since 1997, covering 1,200nm of Queensland coastline and extending to latitude 22° south.

The more basic system predominantly relied on VHF reporting points, coupled with five radars at entry-exit points. However, the current VTS integrates three data streams: ships’ automatic identification system (AIS) is the primary source, backed up by shore-based radars and automated position reporting via Inmarsat-C (APR) satellite systems – and, to a lesser extent, VHF reporting. Together, these sensors give a far more accurate surface picture than was possible with the old ReefRep system.

According to the ReefVTS users’ manual, the objectives of this integrated system are:

- To enhance safety in the Torres Strait and inner route of the Great Barrier Reef, through communication with ships to provide navigational information;
- To minimise the risk of accidents and associated pollution in this ecologically sensitive area;
- To respond quickly in the event of an incident.

ReefVTS incorporates a system of electronic corridors and waypoint monitoring. With vessels being monitored, the traffic system can automatically identify ships that stray from ‘typical’ or usual tracks and alert them. The system also provides ships with a traffic information service that predicts upcoming ‘encounters’ with other vessels. As shipping traffic increases each year, the need for greater shipping lane discipline becomes evident.

Collisions between commercial tonnage and small fishing vessels have long been a concern in Australian waters. Introduction of AIS Class B – a low-power, lower-cost derivative for non-SOLAS vessels – could go a long way to solving the problem, by giving a fuller and more timely picture of traffic. ReefVTS is conducting trials with smaller craft at the moment in a bid to integrate these into the surface picture.

Other developments that will need to be factored

into future VTS operations include technology such as ECDIS (electronic charts) and portable pilotage units (PPUs). In October 2006 compulsory pilotage for Torres Strait transits was added to the existing compulsory section of the Great Barrier Reef inner route.

Despite the clear thrust towards using technology to mitigate risk, Australia’s marine safety experts acknowledge that human error will always play a major role in incidents. MSQ’s director of maritime services, Jim Huggett, urged the industry: “Don’t forget the basics”. He reminded a shipping conference last year: “Emerging technology is good, but don’t forget to look out of the [bridge] window.”

Interestingly, while Huggett described VTS as a “frontline tool” to reduce incidents and stressed the need for continuous reassessment of the risk profile, he also predicted far greater ship/shore interaction and a marked trend towards more shore-based control of shipping. This is clearly an area in which ports will take a growing interest.

“Those ashore may have more information than those on the bridge,” Huggett predicted.

His comment prompts a number of questions. Will a port-based pilot soon be assisting pilots on the bridge? How automated can VTS systems become? Can there ever be a totally accurate and reliable surface picture? As ports seek to improve their own VTS they need to remain aware of the bigger picture outside their boundaries (see next page).

This Australian vessel traffic monitoring system demonstrates that progress with VTS is essentially incremental and that learning from past mistakes is vital. Suitably qualified, trained and motivated personnel are another priority for vessel traffic services, especially now that the technology is becoming increasingly sophisticated.

The equipment, staff and infrastructure required for VTS do not come cheap. However, history has shown that prevention of shipping incidents is far better than the clean-up cure. **PH**

Problems of the past

Australian maritime safety authorities undoubtedly believe that since late 2004 the new ReefVTS has proven more effective than its far simpler ReefRep predecessor.

Two incidents in particular challenged the effectiveness of ReefRep. In November 2000 the Malaysian containership *Bunga Teratai Satu* ran aground on Sudbury Reef south of Cairns. While the main blame fell on the mate on watch, who was distracted by a telephone call to his wife, the official report into the grounding noted that the ReefCentre operator had missed the alert message because he had been dealing with a problem with the Torres Strait radar signal.

Another high-profile incident concerned the grounding on *Piper Reef* in July 2002 of the bulk carrier *Doric Chariot* (pictured), which was attributed to errors by the pilot and officer of the watch.





Photo: Lockheed Martin

Completing the picture

Data sharing between neighbouring ports could improve efficiency and create a comprehensive view of safety and security

**In control ...
increased data
quality helps
decision making**

Considered in its simplest form, a port's vessel traffic management (VTM) system provides information about ships approaching the port so that the harbor master can prioritise accordingly and ensure safe passage from open ocean to berth. In essence, it works in much the same way as air traffic control. The concept is simple, but the increasing size and complexity of today's ports, coupled with ever-more dominant security concerns, means that the functionality of these systems has had to extend beyond the traditional lookout, radar and logbook.

Some ports have to cope with hundreds of vessels, of all kinds, approaching their waterways every day. The information they glean from their vessel traffic system is vital, so their focus now is on getting not just information, but the right information.

Neighbouring ports can assist each other, because each is involved in gathering information to create as complete a picture of vessel movements as possible. Ports that belong to a group are ideally placed to maximise this benefit. For example, as a part of

Transnet National Port Authority, the Port of Cape Town exchanges data with other South African ports.

Ron Crean, business development manager for AISLive, expanded on this theme to *P&H*: "From our experience over recent years, the key to leveraging existing investment in VTM systems is to harness data from neighbouring ports for greater visibility of approaching traffic. This has resulted in tangible benefits in berth and port optimisation and scheduling."

Sitting between the shipping routes of the South Atlantic and the Indian Ocean, South Africa's ports are attractive to vessels and operators from all over the world. The constant flow of traffic brings opportunities for high turnover, but these incoming ships also present port authorities with the need to cope with a multiplicity of languages, skills and levels of knowledge. A controlled environment is vital and the VTM is the tool used to ensure safety and efficiency.

Transnet has been working with Marine Data Solutions – a South African subsidiary of Kongsberg Norcontrol IT – to improve its VTM coverage and

information exchange between ports. The ports of Saldanha, Cape Town, Port Elizabeth, Durban and Richards Bay have all acquired, or are in the process of having installed, Kongsberg Norcontrol IT's VTMS (Vessel Traffic Management Information Systems) 5060. Other ports that have invested in the system include East London, Mossel Bay and the new Port of Ngqura (Coega), located 32km west of Port Elizabeth and due to open in July. It is anticipated that these installations will make it easier for South African ports to work together to improve efficiency.

Captain Karl Otto, formerly deputy harbor master at the Port of Cape Town and now with the South African Maritime Safety Authority, cited the advantages to having the same system across Transnet's ports, as:

- Ease of data integration across the company wide area network
- Efficient and effective training across ports
- Cost-effective spares holding, maintenance regime, interchangeability of equipment and parts and improved system redundancy
- Same service provider, hence high skills transfer
- Upgrades to systems and software.

Steve Nell, managing director of Marine Data Solutions, explained how data sharing can assist with forward planning. Knowing when one vessel has passed Richards Bay can help vessel traffic system (VTS) operators to schedule an anchorage in Cape Town even before the vessel appears in the receiving port's VTS area. He told *P&H*: "They are all using the same VTS operator interface, which from the staffing angle is very beneficial. Staff and managers may move between ports and be instantly familiar with the systems in place there while at the same time Transnet can streamline its VTS operator training."

Cape Town was the proving ground for this specific system, said Nell. "We ran the old and new systems in parallel for some time as Transnet needed to ensure its quality." With this upgrade project confirmed, Kongsberg Norcontrol IT's next installation would be Saldanha. It was here that the company's engineers highlighted the need for improvements in vessel tracking at South Africa's ports.

"The anchorage area in Saldanha Port was not covered by the existing VTS at all. The only way that the operators and management could get a clear

Data for decision-making

The primary role of a vessel traffic management (VTM) system is to aid safety. But increasingly ports want it to aid security surveillance as well. The final element of a VTM in the Turkish Straits (the entrances to the Sea of Marmara) was installed earlier this year. The supplier, Lockheed Martin, was required to provide the Coastal Safety Administration with a system that would create a comprehensive picture of the existing and developing maritime traffic situation.

According to Sean Patten, business development manager for maritime security and safety for the company, the sensors that make up a vessel traffic system (VTS) – including AIS, cameras and radar – can be combined in different ways to suit a customer's needs. "The functionality of a VTS should support an individual port's operations. It should assist in making actionable decisions," he said.

Together, data from the sensors create an image of what is going on in a port's shipping lanes. Cameras are becoming increasingly sophisticated, have day and night settings and can rotate and scan an area. They can focus automatically on a vessel that is in the wrong place, going too slowly or not sailing in accordance with a traffic separation scheme. It can then send off an alert to the VTS controller.

The ship could have rudder or engine problems, Patten explained, but the system would also help identify a vessel that is behaving suspiciously. VTS therefore has both safety and security uses.

picture of the vessels in anchorage was through radio communication or actually taking a look themselves. This left a big hole in the information at the VTS operator's disposal, which meant a certain amount of efficiency was lost, so ensuring that the anchorage was presented on the VTS was one of the main goals of the upgrade installation that we started in 2006. We achieved this by installing the VTMS 5060 integrated into AIS, which made an immediate impact on the marine operations in the port," said Nell.

Easy access to information is important. Otto believes that the simultaneous display of radar and AIS data greatly assists the VTS operators in their tasks. "It is imperative that all the relevant information is available at the click of a button, as and when it is needed." Transas even produces a three-dimensional VTS, which uses information from digital maps, satellite shots and photographs taken on site. The 'right' information will continue to increase in importance and, with a little help from a neighbouring port, it is likely to be more up to date and relevant than ever before. **PH**

Left: Transiting the Turkish Straits; right Cape Town's control room



Photo: Lockheed Martin

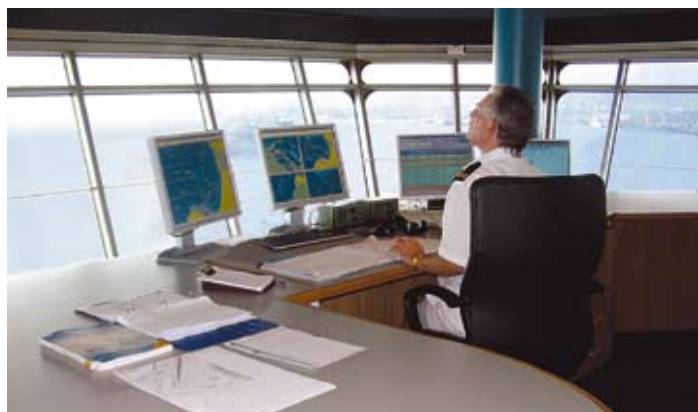


Photo: Transnet



Transforming a fledgling African port

The port of Bejaia on Algeria's Mediterranean coast shows how productivity levels that meet global standards can be achieved

After rebuilding, Bejaia has been turned from a multi-purpose port into a modern container terminal

Transportation bottlenecks make it difficult for African trade to grow and gain access to international markets. Instead, high transportation costs have become a barrier to trade with foreign markets and trade volumes are lower than would otherwise be possible.

Port congestion is a major part of the problem because it sets in motion a domino-like series of events that raise costs and reduce competitiveness. Congestion at a port begins when too much time is taken to offload cargo, or when capacity cannot keep up with demand, especially when there is a sudden surge in demand.

Arriving vessels must wait, often for days, before they can discharge their cargo – and the time they waste waiting increases costs for the shipping lines. In turn, shipping lines then decide to use their smaller and less economic vessels for many of Africa's ports, thus raising the cost of international trade for entire regions at a time. Over the long term, inefficient ports

effectively strangle national and regional possibilities for economic growth and development.

To transform a port into one that is competitive by global standards, the primary goals are immediately to increase the speed and efficiency of handling, while new capacity is being created; to reduce costs for users; and to provide security for goods.

The port of Bejaia on Algeria's Mediterranean coast is a good example of a fast-track port transformation. Following a contract signed in August 2004, work began and in 12 months a multi-purpose port was transformed into a modern container operation, in a project undertaken by Portek International of Singapore.

It started with market studies. These were carried out into the current routes of shipping lines and how best to address their needs, plus a thorough evaluation of infrastructure capacities and logistics. From this, a marketing programme was developed.

Terminal layout planning then began, using computerised simulation to test alternative throughput



Photos: BMT



scenarios in order to determine the optimum configuration. From these, it was possible to identify and specify the equipment that should be acquired.

Bejaia had been a general purpose port and its quay, which is of caisson-type construction, had not been built to bear the weight of heavy equipment. It was necessary to strengthen the quayside with micropiling – numerous small bores were drilled and filled with a grout material. On the landside, normal steel-reinforced concrete piles were driven in to support the horizontal rail beam.

Once port construction needs were determined – for tasks ranging from dredging, reclamation, quay and yard improvements (such as structures and rail installations) – contractors were appointed and activities closely supervised.

In the upgrading of Bejaia, once the list of necessary equipment was determined, tenders were issued and pre-purchase evaluations conducted. Quality and adherence to specifications were ensured through close supervision of selected sources. For the purchase of quay and gantry cranes, all aspects from vessel sourcing to loading, lashing and delivery were handled by Portek. On arrival, inspections and acceptance were followed by installation and operational tests.

The next step was the set-up and implementation of an IT system with Container Terminal Management System (CTMS) software. This was done by a team of in-house IT technicians who installed and connected all hardware and software to meet the specifications.

Within less than six months of being awarded the concession, five rubber-tired gantry cranes had been delivered to Bejaia and were immediately put to work. Portek has a fast-track Terminal Start Up and Management (TSUM) programme that addresses the need for terminals to gear up and quickly begin

People potential

Some port authorities contemplating public-private partnerships to upgrade their ports worry that local workers will be replaced by foreign talent – especially for higher-paying jobs. BMT provides a more positive example.

BMT's Singapore partner Portek believes in advancing local talent, such as Hamid, the *chef service manutention* (vessel operations manager), who began his career as a shipping agent and commercial executive from 2004 to 2005 and then joined newly formed BMT in mid-2005.

Hamid, a 2003 graduate of Algiers' Higher Institute of Trade & Business, majored in International Trade. He commented on his training: "It was an eye-opener to visit container terminals in Singapore and see how major shipping hubs operate. The visit allowed me to exchange knowledge and ideas with managers from other ports in the world."

BMT's emphasis on teamwork and efficient processes is important to him and other employees. "There is a culture of trust here. We all know that we can rely on one another. This helps people grow and makes us all more productive. We all want to give BMT our best effort and to excel at every opportunity," he said.

meeting the surge in demand for container traffic.

To attain the desired levels of efficiency, the next step was the training of existing and new personnel. A team of operator-trainers conducted an intensive training programme that covered every aspect of terminal operations, maintenance and safety procedures during the staff ramp-up period.

Streamlining the flow of day-to-day operations is an ongoing focus – such as liaising with customs officials and simplifying and standardising documentation. A programme is now in place that expedites transactions with both consignees and shippers. Relationships have also been established with governing bodies to expand hinterland traffic; for example, by making recommendations for road links and improvements. The port is always seeking to promote a close sense of partnership to strengthen ties with the community.

At Bejaia, as well as transforming the port to modern container operations, Portek entered into a long-term concession for full operation of the terminal. And two years since this transformation, Bejaia Mediterranean Terminal (BMT) is the only container port in Algeria operating quay cranes and has attracted business from leading shipping lines. It is performing to world-class standards, with its cranes routinely handling 25 moves per crane per hour and 105,744 teu per year with eventual capacity of 300,000 teu. **PH**

A fast-track approach meant Portek was able to get its five RTGs to work at Bejaia in under six months





Photo: Stephen Spark

Competitors or collaborators?

Neighbouring ports are usually thought of as rivals, but often there's scope for co-operation too, as **Stephen Spark** discovered in the Indian Ocean

They call them "Les Iles Soeurs" – the sister islands. Separated by less than 100nm in the Indian Ocean, Mauritius and Réunion do have a family resemblance in their sugar and tourism economies, creole language and reliance on their ports. They have, however, taken divergent paths to development: Mauritius is proudly independent and Réunion is just as proudly an overseas *département* of France.

The harbors – Port Louis and Port Réunion – have developed differently too. Lighterage was the norm at Port Louis until the Bulk Sugar Terminal was opened in 1980. In the same decade, the port structure was commercialised, with the Mauritius Ports Authority (MPA) taking on the landlord role and the Cargo Handling Corporation Ltd (CHCL) being responsible for terminal operations. This year a private-sector 'strategic partner' will be invited to take a stake in CHCL.

Port Réunion is actually two ports. When the facilities at Pointe des Galets, opened in 1886, became

hemmed in by urban development, a new harbor, Port Est, was built 2km to the east and in 1986 took over the container, cruise and ro-ro traffic. Bulk trades – chiefly sugar, but also cement, coal, bitumen and grain – along with a naval base, fishing harbor and yacht basin, stayed in what is now known as Port Ouest.

Réunion also moved away from the wholly state-run port department model. The government owns the land and looks after security and major works, but day-to-day operations, and the quays, warehouses and handling equipment, are the responsibility of the Chamber of Commerce & Industry (CCIR). There are also several private stevedoring companies.

Both ports have seen huge physical changes in recent years. Port Louis went all out for transshipment business, opening the Mauritius Container Terminal (MCT) in 1999. Behind it, at Mer Rouge, the Mauritius Freeport mushroomed, and close to the city centre the old lighterage quays were transformed into the Caudan waterfront retail and hotel district. And in November, oil traffic moved out of the Multi-Purpose Terminal (MPT) to a new jetty able to take 55,000t vessels.

Under a recently approved \$200M scheme, the MCT will gain a third berth, a breakwater and more stacking space and be dredged to 16m depth alongside. The MPT is also due to be enlarged and quays strengthened in readiness for an expected doubling of coal traffic when a new power station starts up in 2011.

The fishing fleet will relocate from its cramped home at Trou Fanfaron to a brand-new harbor next to the sugar terminal – redundant from this year when sugar will be refined on the island and exported in containers. Close by, a cruise terminal is taking shape on MPA's land reclamation site at Les Salines that's earmarked

Port Réunion has found benefits in joining forces with its Indian Ocean neighbours

for a new version of Caudan – but four times bigger.

Réunion has invested €82M of French and EU money in works at Port Est by building two new berths that will allow most of the dry bulk to move from Port Ouest by the third quarter of the year, widening the harbor entrance, dredging to 16m and enlarging the turning circle to 480m. The changes mean that cruise passengers will no longer have to share quay space with coal. There's plenty of room for expansion, too – at least five more quays have already been mapped out.

At Port Ouest, a new dock that can hold the entire Réunion fishing fleet opened last month. When the sugar traffic eventually moves east too, the old harbor area, with its attractive stone-built warehouses and colonial-style houses, will be given the Caudan treatment and converted to leisure, residential and retail uses, complete with facilities for super-yachts.

Mauritius and Réunion have to fight hard to retain major customers and their places on the shipping map, but rather than simply engaging in an 'arms race' of port expansion, they have found scope for co-operation.

In 2006, MPA and CCIR joined up with Madagascar's Port of Toamasina and the Seychelles Port Authority (SPA) to form the Association of Ports of the Indian Ocean Islands (APIOI). Its founding declaration states: "In the context of the globalisation of world trade, the Indian Ocean zone ought to be the crossroads of these great maritime axes [between China, India and Africa] and the ports that are situated there ought to seize the opportunities that are offered to them". The French island of Mayotte (Port of Longoni) has since joined, and Comoros has applied to become a member.

"There are a number of complementarities among our ports in the Indian Ocean," said MPA chairman Dass Appadu at October's Indian Ocean Ports and Logistics Conference. Speaking to *P&H*, Jean-Bernard Robert, CCIR commercial executive, took up this theme of interconnectedness: "We cannot now develop without the others; we need everybody to work together".

That's partly because problems in one port can have a knock-on effect on its neighbours. "One year ago Mauritius had congestion. The port could not absorb the containers, so boats were delayed and there were repercussions on our island too." If, on that occasion, Port Louis's loss was Port Réunion's gain, traffic at least remained in the region rather deserting it for good. "We want to develop transshipment traffic with Port Louis," Robert added.

Fear of marginalisation is never far away for small-island nations like the Seychelles, as trade becomes increasingly concentrated on a few vast hubs, served by a few dominant lines and carried in ever-larger vessels that small countries cannot afford to accommodate, said SPA chief executive Lt Col André Ciseau. He suggested that APIOI states might set up their own feeder shipping line. And while Mauritius and Seychelles do compete on fishing, the two countries can co-operate in encouraging more cruise ships to call at Indian Ocean ports, Ciseau told *P&H*.

Security is another area where a regional strategy makes sense. "We are going to collaborate on security for the police, for the pirates," Robert said, referring to

The islands compared

	Mauritius	Réunion
Area	1,860km ²	2,507km ²
Population	1.27M (2008)	793,000 (2005)
Languages (* official)	English*, French*, Creole, Bhojpuri	French*, Creole
Currency	Mauritian rupee	Euro
Capital	Port Louis	St Denis
Av GDP per head	\$11,276	\$20,406 (2006)
History	1507 discovered by Portuguese; 1598–1710 settled by Dutch; 1715–1810 French possession; 1810–1968 British colony 12 Mar 1968 Independence	1512 Discovered by Portuguese; 1642 French possession (Ile Bourbon) 1793 Renamed La Réunion 1946 French <i>département</i>
Main export industries	Sugar (17%), textiles (16%), tourism, seafood processing	Sugar (85%), tourism
Sugar exports	442,000t	182,000t
Tourist arrivals	907,000	409,000 (2005)

The ports compared

	Mauritius	Réunion
Commercial ports	Port Louis, Port Mathurin (Rodrigues)	Port Réunion (Port Ouest and Port Est)
Port authority	Mauritius Ports Authority (MPA)	Chambre de Commerce et d'Industrie de la Réunion (CCIR)
Handling authority	Cargo Handling Corporation (CHC)	CCIR
Equipment	5 STS, 4 RTGs (+ 4 due mid-2009), 8 reach-stackers (+ 4 on order)	4 STS, 18 straddle carriers, reach-stackers, 1 mobile crane
Containers: captive	215,072teu [+21.5%]	218,376 [+10.5%]
Containers: tranship	108,321teu [+4.85%]	6,497teu [+98.3%]
Containers: total	323,393teu [+15.3%]	224,873teu [+12%]
Dry bulk	1.67M t [+6.6%]	1.52M t [+9.0%]
Liquid bulk	1.19M t [+3.63%]	676,190t [-8.6%]
Total cargo traffic	6.46M t [+9%]	4.21M t [+6.7%]
Cruise passengers (calls)	circa 10,000 (22)	6,756 (10)

Note: All figures 2007 except where stated; [] = % increase/decrease FY2007/08 v FY2006/07; population and GDP figures are estimates

Asian vessels illegally fishing in Réunion's EEZ. It's a concern for Mauritius, too, according to MPA director general Shekur Suntah. For the Seychelles, pirates are people who steal ships, not just fish, and the closer they come to Seychellois territorial waters the more they threaten its trade. "Only concerted international action can address this problem," Ciseau insisted.

The fierce competition stimulated by globalised trade has made ports aware that they need to find ways to co-operate too. CCIR's Robert summed up: "We are competitors for the quality of the customers, and we are collaborators too. If you want [only] to compete, a port will lose the competition." **PH**



Photo: Barnaby Eales

Meeting of minds in the Med

The launch of the Mediterranean Union is helping to create consensus and co-operation between competitive Spanish and North African ports over the management of trade and security. Iberia correspondent **Barnaby Eales** reports

The AP Møller-Mærsk terminal at Tangiers-Med 1

From the shores of the European Union at Algeciras, in southern Spain, the lights of the Tangiers-Med container port illuminate the otherwise dark horizon some 20nm away.

With Tangiers-Med's second container terminal now open, Mediterranean ports are increasingly coming under the spotlight of international attention.

Despite feeling the effects of Morocco's lower labour costs on transshipment container trades, the region's ports and the countries of the recently created Mediterranean Union (MU) have signed deals that herald a new spirit of co-operation around the Mediterranean Sea.

Even before the MU was constituted on 13 July 2008 by 43 countries that surround the Mediterranean, the port authorities of Tangiers-Med and Algeciras were looking at ways to implement a single customs control on ferry movements between the two ports.

"Talks are addressing a move to establish customs controls at the port of origin of goods, which would do away with the unnecessary situation of two border controls between the two countries," a source at the Algeciras Port Authority (APB) told *Ports & Harbors*.

The dialogue is just one of the initiatives being instigated by Spanish and Moroccan port authorities that aim to foster better trade relations. Symbolic of this tide of co-operation, the first ro-ro service between Tangiers-Med and Algeciras began operating on 1 November 2008.

Developing 'Motorways of the Sea' is one of the six pillars of activity agreed upon by MU member states at a meeting in Marseilles on 3 and 4 November. From its headquarters in Barcelona, Spain, the union will co-ordinate and develop European-Mediterranean projects ranging from sea and land motorways to anti-pollution measures, alternative energy supplies and business development.

The union intends to finance projects from a €10Bn budget generated by private companies, the European Investment Bank and contributions from EU and MU member states.

The creation of the MU is expected to push forward moves to reduce customs duties and controls between members in 2010. The prospect of greater co-operation between Mediterranean countries has prompted port authorities to sign their own agreements.

Secure and compliant

North Africa remains a risk area for mass migration, drug trafficking and Islamic militancy, making port security a priority at Tangiers-Med, Africa's largest port.

Security specialist European Aeronautic Defence and Space (EADS) is implementing a multi-million-Euro integrated security system to control sea and land harbor access points at Tangiers-Med in conformity with EC directive 2005/65 on harbour security. The system will feature shoreside sonar detection, infrared cameras and radars, perimeter fence detection and identity controls on personnel and vehicles using the port. All the systems will be monitored from a central control unit within the port.

Like Tangiers-Med, Algeciras is compliant with the ISPS Code and the CSI, as well as with the Mega-port initiative on radioactive materials. The Spanish port is working with its Moroccan neighbour on security issues regarding ro-ro traffic and illegal migration. Algeciras is also implementing new security measures including the control of vehicles within the port's land-side area.

With a view to enhancing trade flows, safety and security measures in the Strait of Gibraltar, the port authorities of Tangiers-Med, Algeciras, Calais and Dover signed a co-operation deal in June. The accord should pave the way to exchanges of information on customs and trade relations, making the English Channel a source of inspiration for greater links between Tangiers-Med and Algeciras.

The port authorities of Algeciras and Tangiers-Med already handle substantial volumes of traffic. In 2007, both ports handled 2.6M passengers, 675,000 vehicles and 165,000 trucks.

The impressive infrastructure at Tangiers-Med, lower labour costs and road and rail projects have attracted multinational car-makers such as Nissan and Renault to Morocco, from where they will export goods to the European Union.

Prospects of rising trade have led Valencia Port Authority to call for the MU to establish a new rail link between Algeciras and Hamburg via Valencia and Barcelona. Ahead of the expected opening of the high-speed railway from southern France to Barcelona by 2014, the Spanish city took the initiative by launching a regular multi-client train service from the port to Lyon; it will begin in February 2009.

In the past, poor road and railway links to Spanish ports damaged the standing of Algeciras, Valencia and Barcelona, yet today they rank in the top 10 of European container ports in terms of volume. For example, Barcelona's container traffic increased by 3.56% in 2008 to more than 2M teu, while export

containers saw growth of 6.1% to reach 330,378teu.

APB is countering the threat of competition from Tangiers-Med by ensuring that Hanjin Shipping's new terminal at the Outer Isla Verde quay will be linked by road and rail to Madrid when it opens in 2010. Although 95% of trade at the port is transshipment from AP Møller-Mærsk, Hanjin Shipping has agreed to develop import-export trades at Algeciras.

Pledges of foreign investment from Hanjin at Algeciras and from Hutchison Port Holdings at Barcelona have helped dispel fears that there will be insufficient container trade from Asia to fuel growth at all major Mediterranean ports in Spain and Morocco.

Exemplifying this spirit of co-operation, Said Elhadi, chairman of Tangiers-Med Special Agency, which manages the port, emphasised the mutual benefits of new port capacity in the Strait of Gibraltar.

"I believe there will always be enough demand in the area for the two ports," he said.

The respective port authorities signed a co-operation agreement in 2005. "The co-operation opportunity stems from the fact that Tangiers-Med and Algeciras are the two ends of a maritime bridge between Morocco and Spain for passengers as well as goods, and secondly both have long-term interests to establish synergies with associated logistics parks, but also to take advantage of the scale effect of size of the two ports. This co-operation will draw benefit to the two ports in the short term for ro-ro and passenger traffics and in the long term for containers," Elhadi said.

There are, however, signs that Málaga has started to feel the impact of Tangiers-Med on its trade since AP Møller-Mærsk's operations began at the Moroccan port in mid-2007. In the second half of 2007, Tangiers-Med moved over 200,000teu.

APB, on the other hand, said Tangiers-Med was not affecting trade through Algeciras. Despite reporting an overall 3% decrease in container trades between January and September 2008, when the port handled 2.48M teu, overall volumes grew by 1.3% to 56M tonnes. APB has attributed the rise in volumes to a decrease in the number of empty boxes and growth in ro-ro traffic to and from Morocco.

To quell fears over competition from Morocco, APB announced on 21 November 2008 that dock workers and private stevedore companies had signed a pre-accord in which AP Møller-Mærsk would move 3M teu a year through Algeciras for 10 years in exchange for guarantees over container-handling productivity. **PH**

Signposts point to Africa from the Maltese crossroads

The Mediterranean island of Malta is at a maritime crossroads. Situated midway between Suez and Gibraltar, with the coast of North Africa just a few kilometres to the south and Italy and the rest of the European Union to the north, Malta believes it is ideally placed to handle growth in African trade.

Already Valletta is the hub port for cruising to Tunisia,

Libya and, soon, Algeria. As operators seek new winter cruising alternatives to the Caribbean, Malta is setting up partnerships with African ports.

Ship agents in Malta, meanwhile, are watching for signs of development in Libya. Any imports into Libya are likely to benefit Malta, and the island republic will offer any help it can. Korean carrier Hanjin Shipping added calls at Malta

Freeport in the middle of last year on the Asia-western Mediterranean service, and these link in with feeder business up the Adriatic Sea to Koper and Venice.

Other feeders carry food and drink products the short distance to Tunisia. One agent told *Ports & Harbors* that the African link currently accounts for 80–85 containers a week, and there's space for more.

Good neighbours

IAPH's best-practice approach should smooth relations between developing ports and their cities, explain **Wolfgang Hurtienne** and **Claudia Großweischede**



Hamburg's busy Elbe river with the city beyond

Describing general strategies in port planning is a great challenge. While ports are exposed to global economic effects, they also interact on the local level in highly specific ways.

Historically, ports were founded because settlements needed their functions, such as protection for ships or the transporting of merchandise. Ports therefore initiated traffic and trade for the benefit of their cities.

The combination of a significant maritime gateway, an important human settlement and a whole range of businesses has given seaports a special attraction. In most cases, a port acts as catalyst for the development of its city, with the result that the relationship between the two has traditionally been very close and mutually advantageous. Until recently, even their spatial development occurred in a synchronised way, not least because people had to live close to their place of work. The down side came when port areas had to be expanded, as development often interfered with the city area and required demolition of workers' homes, which in turn meant that the residents had to be relocated.

Over the years, a decoupling of the requirements of port and city development took place. Ports need areas for industrial and commercial activities that may generate dust, noise or air pollution, whereas the residential zones of cities require silence and clean air. This creates a risk of each side obstructing the other's development plans, leading to stagnation.

Globalisation has forced ports to modify their attitudes towards spatial development. Not only does the port play a pivotal role in international transport but it's also developed into the focal point for its city's international trade. While this creates benefits for the city in both maritime business and the wider international economy, spatial development often cannot keep up with the demand being generated by the fast pace of economic globalisation. The economic environment changes very quickly, but spatial adaptation demands a longer timescale.

A great many ports have grown up over the centuries very close to city centres, where a one-dimensional development plan cannot be realised easily without



Photo: Bernd-Rainer Albers

causing severe conflicts between port and city. Technological advances – particularly in terms of ship size and container handling – have necessitated some far-reaching alterations to port structures, such as the extension and strengthening of quays.

Scope for conflict can arise, too, if additional surface areas for port-related operations have to be provided at the expense of other uses. An alternative is to construct new port areas on agricultural ('greenfield') land or reused industrial ('brownfield') sites, as has been done in Antwerp for the Deurganckdock. Another possible solution is to expand the port on to reclaimed land. This type of 'bluefield' development is in hand at Rotterdam's Maasvlakte, although for many ports it is not a practical option.

From this it can be seen that two trends in the spatial development of seaports have emerged. The first involves the creation of future-oriented port areas – mostly by greenfield and bluefield development, but also through expansion on to brownfield sites. The second trend occurs where the area available for port activity does not meet, and cannot be adapted to, current and future economic requirements. These port areas stagnate and may be suitable for conversion to other uses, such as waterfront housing, hotels and leisure/amenity facilities – a strategy that has proved highly attractive and successful in many port cities.

Both trends may be operating in a seaport at the same time, with each of them stimulating economic development. The second trend gives seaports a new role, providing urban quarters at the waterfront, usually in a mixed residential and business environment. And in both cases – redevelopment to get a more productive port area or redevelopment creating a new urban area – a new neighbourhood is created and has to be organised. The ideal would be to forge a closer coexistence by finding ways to make the port more compatible with the city and at the same time making the city sturdier and less sensitive towards the port.

These two trends can indeed work together. An attractive waterfront for new urban uses in combination with soft port facilities like cruise shipping can certainly promote port redevelopment. One only has to look at

Marseilles and Barcelona, or indeed Hamburg, where the HafenCity is taking shape and various port areas are being expanded to meet the present and future demands of container traffic.

Analysis shows that there is a great deal of commonality around the globe in the types and causes of conflicts that flare up at the port-city boundary. These typical problems can be classified under different categories. Planning strategy, clashes of interests and incompatibilities in land use seem to be especially fertile grounds for long-lasting disputes between city and port. The environmental arena, too, is one where relations often become strained, for example by noise and air pollution.

Overlapping problems may also emerge in infrastructure and transportation – for example, when port-related traffic causes city congestion. And even the apparently innocuous field of marketing can generate difficulties, if the communication strategy of a newly developed urban quarter damages the image of the neighbouring port district.

While the diversity of special conditions that apply to each seaport makes it difficult to create any general approach to solving these problems, there are nevertheless many promising best practice solutions that may be helpful to port and town planners working on resolving port-city conflicts. They should also help those responsible for special projects at the port-city interface regardless of whether they are port expansion schemes or completely new port developments.

Several seaports have shown that these sorts of conflicts are not intractable, and apparently contrary land uses can be managed successfully side by side. But it is essential to find compromises and to anticipate possible future conflicts seriously and systematically. In the following pages you will find examples of redevelopment projects at the port-city interfaces of both Hamburg and Genoa. **PH**

Wolfgang Hurtienne is director of port planning at Hamburg Port Authority. Claudia Großweischede is project manager for the IAPH's database for best practice in redevelopment projects

A guide to best practice

For its 2007–2009 work plan, the IAPH Port Planning & Development technical committee – which comes under the Port Development, Operations & Facilitation group – agreed to "collect and analyse successful cases of port redevelopment projects and prepare a guide book on port redevelopment". This was taken over by Wolfgang Hurtienne, director of port planning at Hamburg Port Authority, Germany.

The idea is to research best practice cases of redevelopment projects at the port-city interface. Different topics will show specific problems and transferable solutions illustrated by examples. The result will be a database of best practice cases, which will be made available on the web to IAPH members. The research is supported by scientific assistance of the International Association of Cities and Ports (IACP). The project will be finished by May, so that the results can be shown at the 26th IAPH World Ports Conference in Genoa.

With careful planning it is possible to integrate living and work spaces alongside ports, as here in Hamburg's HafenCity



Photo: Tim C Kraus



Photo: Burkhard Kuhn/fotofrizz

Revitalisation through planning

Promixity of a port need not hinder development of a sophisticated city centre. **Jürgen Bruns-Berentelg** updates *P&H* on the redevelopment of Hamburg's HafenCity

The creation of HafenCity has called for new infrastructure, including a metro connection to the city centre and a cruise terminal

Hamburg, the second-biggest metropolis in Germany, is developing a new district on former port territory. This new area owes its appeal to its exceptionally attractive location – right on the banks of the River Elbe. At the same time, it is located only a couple of minutes' walk away from both the city centre and the central station. Two sections of HafenCity have already been completed, with the first public squares and esplanades already being appreciated by Hamburg's residents and tourists.

It is not the first time development of this area has presented Hamburg with an opportunity. In the second half of the 19th century it was home to one of the world's most modern ports – the brick buildings of the Speicherstadt warehouses, which are protected as historic monuments, serve as a reminder of this.

Containerisation saw the importance of the port decline in the second half of the 20th century. New

cargo terminals were built on the other bank of the river, to the south of the Nordereibe, and the area gradually turned into an industrial wasteland.

The Parliament of the Free and Hanseatic City of Hamburg finally decided to redevelop the area in 1997. Apartments for 12,000 residents were planned, as well as office and service provision for 40,000 jobs. Shopping facilities and cultural institutions with international appeal, such as the International Maritime Museum Hamburg in the historic Kaispeicher warehouse, were all on the agenda.

When completed in 2020, HafenCity will cover 157ha (123ha of land and 34ha of water). It will boast up to 2M m² of floor space within the framework of more than 200 individual projects.

Several issues had to be addressed before it was possible to implement the transformation plans. The site's previous roles as a port and industrial district



Photo: Thomas Hampel/Elbe&Flut

had left their marks, some of which are worthy of preservation. These include historic harbor basins and quay walls. Other remnants initially posed an obstacle – HafenCity is a classic example of a ‘brownfield’ site, with severely contaminated soil in various places. In the area surrounding the former gasworks, which once provided much of Hamburg’s power, 200,000m³ of soil (20,000 truckloads) were excavated and treated in thermal facilities or safely stored in landfills. The decontamination of this area, totalling 7ha, cost €17M.

Not all of the challenges encountered can be linked to its history. Because of the site’s location, noise and emissions from the shipping industry were taken into account at the planning stage. HafenCity extends along the northern bank of the Norderelbe,

the southern bank of which is still in use by the port.

The new part of town features another big attraction – a cruise terminal. At present, it’s operating out of temporary buildings, but more than 100 ships are predicted to arrive as early as 2010, including large luxury liners such as the *QM2*. These already dock here at regular intervals and passengers have immediate access to Hamburg’s most beautiful and central spots, because the ships moor right at the heart of the city.

The revitalised waterfront at HafenCity has become a popular area with Hamburg residents and visitors

This in turn creates other challenges. These same vessels will be docking in the immediate vicinity of the most attractive residential and office areas. Solutions regarding noise and emissions needed to be found.

Cruise ships produce considerable quantities of emissions during their lay-days, as the energy required on board is generated by the engines. In the process, harmful substances escape – primarily sulphur dioxide. Thanks to new EU guidelines, the percentage of sulphur in marine fuels will now be drastically reduced – from 4.5% to 1.5% since 2007 and 0.1% as of 2010.

Onshore power supply sources could also help cut emissions significantly. For this reason, Hamburg plans to launch an EU-funded pilot project on the banks of the River Elbe. The financial support provided by the EU is indispensable as shipping companies may otherwise be tempted to avoid the Port of Hamburg because of the additional associated costs.

Furthermore, international standards will need to be established for ship-to-shore power supply connections, current and voltage. The power plant capacity necessary to provide power to cruise ships at berth must also be identified.

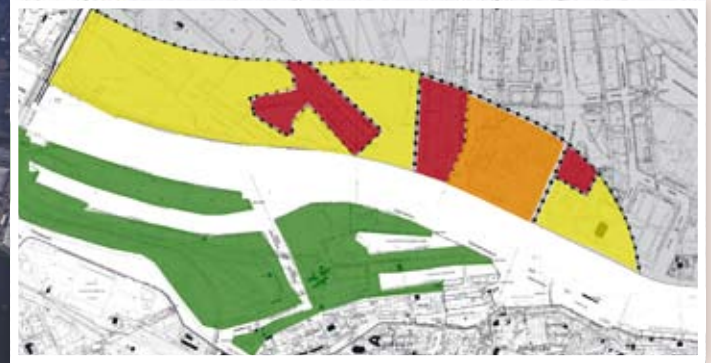
Emissions from ships were considered at the early planning stages of HafenCity, so the concepts developed do not rely on having an onshore power

‘The district owes its charm to the merging of inner city and port’



Photo: orange markings show the parameters of HafenCity. Inset: HafenCity in green, with the working port area above

Photo: fotofrizz



- Noise cap during the night: 22.00–06.00 max 63dB(A)/m²
- Noise cap during the night: 22.00–06.00 max 60dB(A)/m²
- Noise cap during the night: 22.00–06.00 max 55dB(A)/m²

Getting on with the neighbours

Measures to control noise were an essential part of ensuring that different parts of the HafenCity development could be used to their best advantage. The working port area is covered by a planning ordinance that includes noise levels that cannot be exceeded during the night (22.00–06.00). Three levels are stipulated (see diagram above), depending on proximity to residential areas.

Specifications for residential developments included

noise protection measures, primarily a maximum night-time level of 30dB(A) inside bedrooms even with the windows slightly open. Special sound-proofed windows were developed for this purpose.

Within the specified boundaries, developers had some scope to choose their own means of reducing noise to the stipulated level and a double façade was not necessary.

These public regulations are supplemented by a tolerance

clause in property purchase agreements relating to noise caused by the port.

Another means of reducing noise levels throughout HafenCity is to discourage the use of private vehicles by providing excellent public transport links that integrate the new development with Hamburg city centre.

It is estimated that there will be 40,000 daily commuters and provision for them includes the new U4 underground railway line, plus existing connections to the north and west on lines U1 and U3. In addition, a comprehensive network of cycleways and footpaths criss-cross HafenCity.

supply. Planning stipulations were established early on; it was decided, for example, that the immediate vicinity of the cruise terminal would not be used for residential purposes but will be devoted to office and services.

Noise protection has also been considered. Building permits in HafenCity impose certain requirements – covering, for example, the arrangement of bedrooms and construction of windows. Reveals must be clad in sound-absorbing materials, to ensure a high degree of soundproofing, but, despite the significant noise level generated by the port, residential buildings do not need double façades. Property purchase agreements contain a tolerance clause relating to noise caused by the port. These solutions enable different parts of the new development to be used to their best advantage.

The new district owes its charm to the successful merging of the inner city and the port. The oldest of the historic harbor basins was reinterpreted and today a floating esplanade consisting of pontoons



Photo: Tim C. Kraus

enables passers-by to admire traditional ships. Every arrival of a famous cruise liner is celebrated by thousands of people.

HafenCity will continue to grow over the coming years, helped by its prime waterfront location where there is great demand for apartments and office space. Various companies with worldwide operations are preparing to relocate or are already present.

But the project is still evolving. HafenCity will not be finished before the early 2020s – approximately two decades after completion of the first building. To date, more than 1,000 architects have participated in the various competitions for future buildings, including such internationally recognised names as Erick van Egeraat, Jacques Herzog and Pierre de Meuron, Massimiliano Fuksas, Rem Koolhaas and Richard Meier. **PH**

Jürgen Bruns-Berentelg is CEO for HafenCity Hamburg
More info: www.hafencity.com



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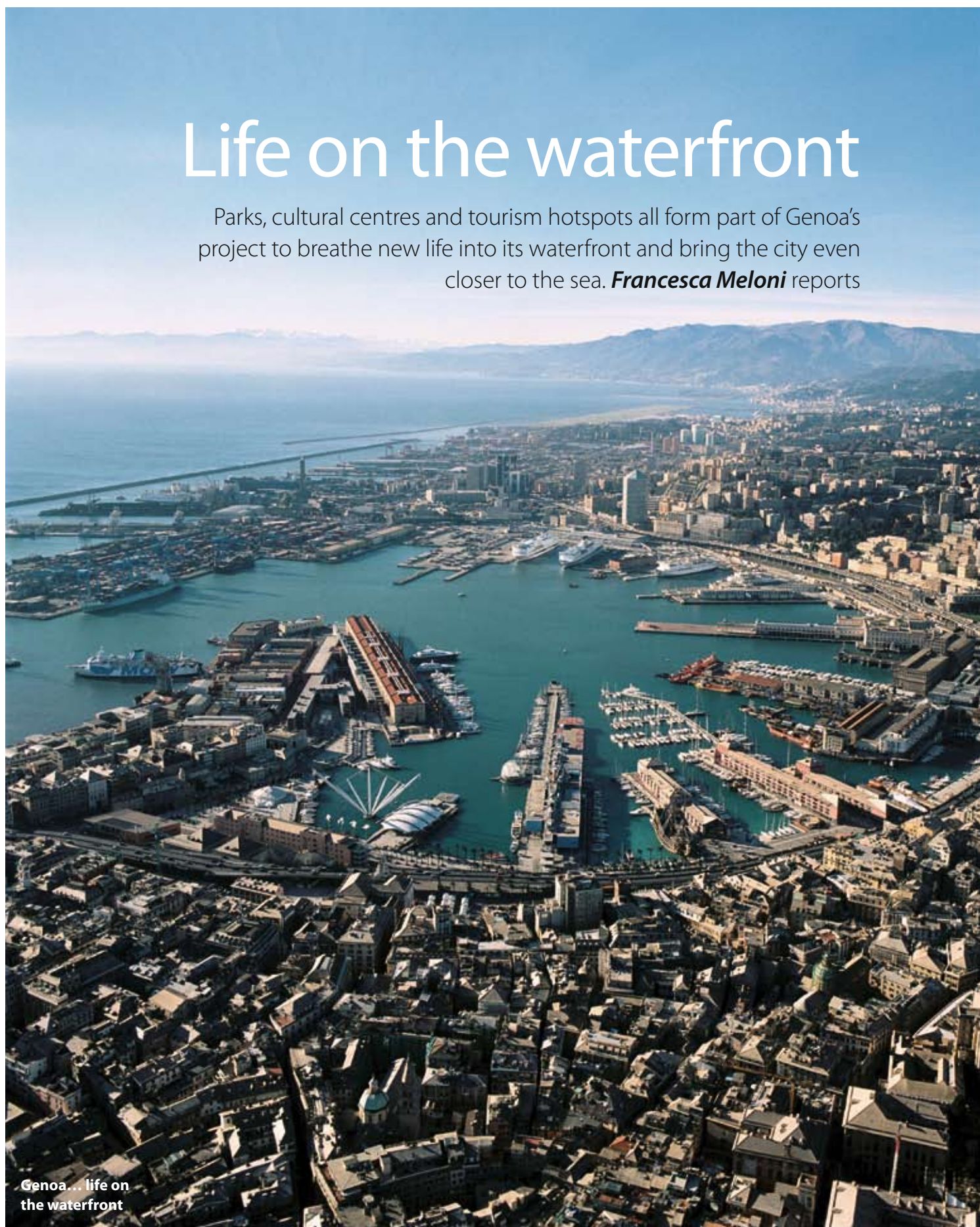
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Life on the waterfront

Parks, cultural centres and tourism hotspots all form part of Genoa's project to breathe new life into its waterfront and bring the city even closer to the sea. **Francesca Meloni** reports



Genoa... life on
the waterfront



Over the next few years, both the waterfront and the city in Genoa are set to undergo a transformation. A harmonious and coherent development process has been put in place, focusing on landscape and environmental quality, with liveability and attractiveness very much in mind. The revitalisation shows how a city-port relationship can be strengthened to work effectively for the benefit of all its inhabitants, visitors and businesses.

The urban improvement project will involve the development of a series of parks and green areas along 22km of the coastline – from Voltri to Multedo and Sestri, and from the Molo Vecchio to the Fiera (fairgrounds) – bringing the city even closer to the sea. Ponte Parodi will become the site of a cruise ship quay and terminal, where passengers will disembark directly into the heart of the city. Other tourist and cultural attractions, in addition to social initiatives, will be located in this part of the waterfront.

The Urban Lab, the technical body at the Municipality of Genoa, is currently analysing the city's transformation based on a plan that integrates strategic urban projects, infrastructure, the port and environmental improvement as well as cultural and historical heritage. It will also be able to draw on the experience of Genoese architect Renzo Piano.

The principles for sustainable growth developed by Urban Lab will act as guidelines for transforming the urban fabric. A 'green line' and a 'blue line' will mark, respectively, the transition between the city and the natural environment.

The project should set an important example for those cities seeking a form of urban renewal that interacts with the waterfront.

The improvement of Genoa's waterfront began in 1992 as part of the celebrations to mark the 500th anniversary of Columbus's discovery of America. Renzo Piano renovated the Porto Antico (Old Harbor), an area stretching from Piazza Caricamento, the site of Palazzo San Giorgio, headquarters of the Port Authority of Genoa, to Ponte Parodi and the city docks. The Old Harbor had become virtually unused, after port traffic shifted towards the western part of the city between 1920 and 1940 and after World War II.

A city whose sea should be returned: this was the main idea behind Piano's project. The plan was also to create facilities in the area that could benefit the city even after Genoa's Expo'92 celebrations had finished, and to transform an area that had been totally separated from the city into a space that could be used and enjoyed all year round.

The project improved and upgraded the Magazzini del Cotone (Cotton Warehouses) and the Mollo, developing new structures such as the Aquarium of Genoa and the 'Bigo', a panoramic elevator. Additional infrastructure was developed in just a few years, along with recreational-cultural projects, social initiatives and business activities that attracted visitors and revitalised the nearby historic centre.

As a result, the Porto Antico became the modern plaza of a thousand-year-old city, a means of breathing new life into the narrow alleyways, the driving force of

a growing penchant for tourism, the link between the sea and the historic centre. The main attraction is the aquarium, which attracts 1,500,000 visitors each year. It continues to be the driving force behind Genoa's tourism industry.

The Magazzini del Cotone was built in 1869 to meet the increasing commercial traffic requirements of the mid-19th century, and in the decades that followed it was used to store the loads of cotton that arrived on steamships in the Port of Genoa. Today it is an amazing centre for cultural and economic activities. After the restyling by Piano, this structure contains the Conference Centre of Genoa, one of the most prestigious and versatile exhibition facilities in Italy.

These old warehouses also house important cultural centres, such as the Città dei Bambini (City of Children), the largest and most complete area in Italy for children. This facility includes the Edmondo De Amicis International Library for Youth, Europe's most modern and specialised in its sector. There is also a multi-theatre Cineplex, the Music Store, two malls and numerous bars and restaurants.

The Molo Vecchio area provides direct access to the sea through the tourist marina and the Teatro Piscina (Theatre Swimming Pool), the floating barge that in the summer becomes a swimming pool by day and a theatre by night. The Arena del Mare, one of the city's most attractive areas for summertime concerts and theatre performances has been active since 2000.

A delightful ice-skating rink under the tensile structure of Piazza delle Feste, where visitors can ice-skate right next to the shore, is open from December to March. For the rest of the year, Piazza delle Feste is used for shows, exhibitions and sporting events.

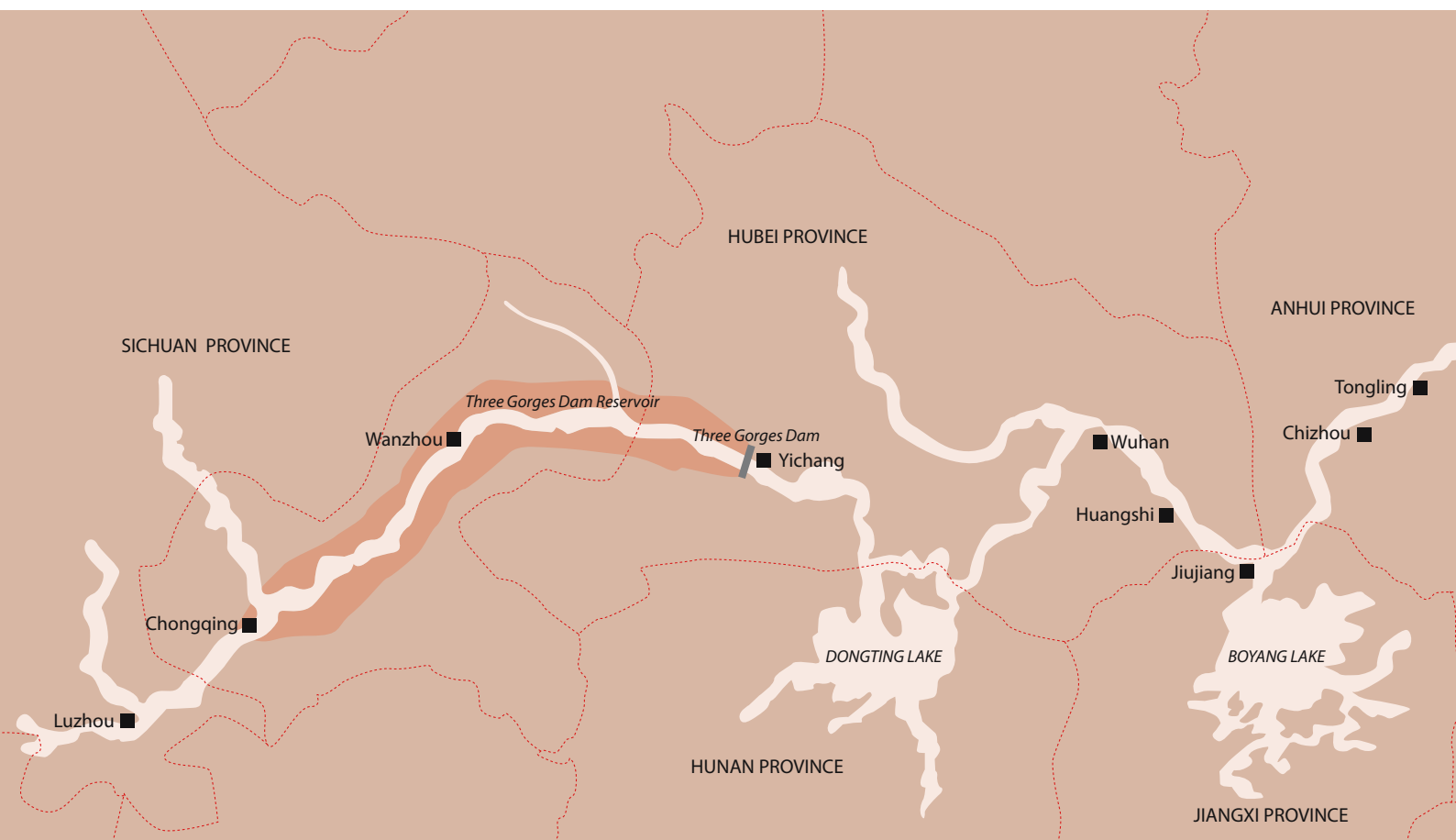
Over the next few decades Genoa will not only be a great port but also a port city that will have skilfully recovered its entire waterfront, thereby creating an economic development opportunity and an attractive, liveable city. **PH**

Francesca Meloni is a press officer at the Port Authority of Genoa.

Port of Genoa at a glance

The Port of Genoa covers about 7M m² and extends 20km along the coastline. It has 13 terminals, linked to road and railway networks, for containerised and non-containerised dry and liquid bulk cargoes.

Traffic 2007 (M tonnes)		Units	
General cargo	29.7	Total containers	1.85M teu
Containerised cargo	18.8	Incoming ships	7,880
Conventional cargo	10.9	Outgoing ships	7,848
Solid bulk	6.0		
Liquid bulk	21.5		
Mineral oils	20.5		
Other liquid bulk	1.0		
Bunkers and supplies	1.5		
Total	58.7		



From Shanghai to Chongqing

David Lammie, editor of *Yangtze Transport 2008*, looks at past and present investment and initiatives aimed at maximising the Yangtze's true potential

The Yangtze River and its major ports are the focus of a huge investment campaign as Chinese officials strive to improve transport connections to central and western parts of the country. They recognise that logistical problems have so far stifled manufacturing investment in the interior and exacerbated the wealth divide with the richer coastal provinces.

The Yangtze is the largest cargo-carrying river in the world and serves as a vital means of transport for both cargo and passengers. Stretching for more than 6,300km, it is the only river that connects eastern, central and western parts of China. The eight provinces and municipalities along the navigable trunkline – the main channel – from Sichuan in the west to Shanghai in the east, are home to about one-third of the national population and an even larger share of industrial and agricultural output.

The river dominates the country's inland water transport sector, accounting for 80% of cargo volumes.

Its enduring importance was underlined by a 17% year-on-year growth in throughput in 2007 of the 24 major ports along the Yangtze to 833M tonnes in 2007. Container throughput increased by 38% to 5.54M teu, largely as a result of strong domestic traffic.

Even so, the river remains a sorely under-utilised resource; only in the lower reaches is it used to anything like its true potential. The ports in Jiangsu province, from Taicang near the coast to Nanjing some 300km inland, handled two-thirds of the Yangtze's total cargo in 2007, and around three-quarters of its container throughput.

This imbalance reflects the more favourable shipping conditions that exist in the lower reaches of the river, echoed by the continued dominance of the economies in this region. By contrast, investors in the interior have to contend with logistical difficulties that sometimes can outweigh the cost benefits of locating away from the more expensive coastal cities.

These difficulties include longer and more complex



Photo: Maria Charalambous

supply chains, fewer international air connections and greater bureaucracy – all of which tend to be more acute the further one travels from the coastal cities.

In Luzhou, Sichuan province, investors have to contend with shortcomings in the city's port infrastructure and the sheer distance to Shanghai situated at the other end of the Yangtze. For example, Terex Changjiang, a manufacturer of mobile cranes, does not use the Port of Luzhou to transport finished products because it lacks both a ro-ro terminal and the special vessels needed to transport cranes. Instead, the cranes are driven some 2,000km to customers in eastern China.

Such problems are crucial to existing and potential investors in the interior, as well as to the Chinese government, which is actively trying to divert investment away from the coastal regions in a bid to spread wealth more equitably across the country. Many

manufacturers are now looking to invest in the interior of China due to rising costs on the coast. For them, shipping by water is the only cost-effective means of transporting components and finished products over long distances.

Beijing's 'Go West' policy (see box below) was launched to lessen the gap between the prosperous coast and the less established regions and encourages port development.

This development continues a policy that really began just 30 years ago, when China embarked on its open-door policy and started to reform its economy. Between 1978 and 1990, measures were taken to separate the management of ports and that of the waterway itself, with the state taking charge of the waterway while the ports became the shared responsibility of the central and local governments.

Decentralisation continued apace to the extent that, by 2002, the central government had completely relinquished control of the ports to the sole care of local governments. Further reforms separated the functions of government and enterprise. Port authorities acted as regulators, while port operators were responsible for developing and running the ports as commercial concerns.

Several Yangtze ports have turned to the stock market to raise capital, beginning in 2002 when Chongqing Port Authority's listing vehicle made its debut on the Shanghai Stock Exchange. Wuhu and Nanjing have been among those to follow suit.

Go West

The 'Go West' policy – which began in 1999 – is designed to close the huge economic gap between the coast and central and western China. It involves large-scale funding for a range of huge infrastructure projects to lay the ground work for future development. A substantial amount is being invested to improve utilisation of the Yangtze. The central government has pledged to invest Rmb15Bn in developing the river between 2006 and 2010. The money is being spent on waterway management, port construction, shipbuilding standardisation and shipping security projects.



Photo: Joachim Affeldt

Yangtze estuary: a ship bound for Shanghai passes Chongming box terminal taking shape in distance

Port operating companies have also moved in, led by Shanghai International Port Group. Over the past eight years, the company has poured more than Rmb1Bn (\$145M) into developing container facilities at 10 ports of strategic importance. There has also been an influx of foreign port developers, creating a competitive investment environment.

Much of the new money has been invested in port infrastructure, equipment and technology. Until fairly recently, few ports had dedicated container berths or terminals; they handled general, breakbulk and container cargoes together. Today, almost all the major Yangtze ports have dedicated container berths or terminals. Ro-ro terminals have sprung up in the three major port hubs of Nanjing, Chongqing and Wuhan. Renovation, expansion and construction projects are under way in all three sections of the navigable river.

In recent years, a trend towards specialisation has emerged. Nantong, for example, is particularly strong in transporting metal ore, Zhangjiagang in timber, Taizhou in non-metal ore for export, Jiangyin in iron and steel, Nanjing in containers, Wuhu in coal, Zhenjiang, Chizhou and Tongling in non-metal ore, Huangshi in cement and sand, and Yichang, Wanzhou and Chongqing in ro-ro transport. This allows the ports to concentrate their limited resources on building up particular areas of strength, to service their hinterland

and avoid unnecessary duplication and competition.

The Yangtze River Administration, the department of the Ministry of Communications that is in charge of the Yangtze, is looking to rationalise the ports further, giving priority to developing dedicated terminals for containers, coal, ores, ro-ro and petrochemicals. The ports are being encouraged to develop their logistics business, and the central government is also promoting strategic alliances between them, along with regional co-operation and co-ordination.

Many of the Yangtze ports have recently purchased new equipment, although handling equipment often remains outdated. Shipping agency Penavico claims that one port's handling equipment is inadequate, which seriously affects loading efficiency and causes regular build-ups of traffic.

These measures to improve port efficiency are part of a wider effort to modernise the Yangtze. Other elements include improving sailing conditions on the river and promoting the introduction of larger and more modern vessels.

The aim is to have a network of well-equipped, efficiently run, multi-functioning ports by 2020, with Chongqing serving as a regional hub on the upper reaches of the river, Wuhan performing the same role on the middle reaches and Shanghai, supported by Nanjing, as the hub for the lower reaches. **PH**

Shifting silt

The Chinese government has a clear view on how it wants to modernise the Yangtze: deepen the lower reaches, smooth the middle reaches and extend the upper reaches. This huge task has been made more urgent by rapidly rising traffic volumes and the changing geomorphology of the waterway caused by the construction of major hydropower projects.

Much of the dredging work has so far been focused on the lower reaches, since this is where most of the shipping activity takes place. Following the removal of a treacherous sandbar, the guaranteed depth of the river mouth is now 10.5m. Current work will increase the depth further to 12.5m, allowing ships of 50,000dwt to pass through all year round, and 100,000dwt at high tide.

Now attention is shifting to the middle reaches to mitigate the impact of the Three Gorges Dam, which has reduced river flows and changed siltation patterns. As many as 1,000 workers, 100 boats and 18 dredgers are engaged in removing silt from the river bed in this section.

To complicate matters further, the cycles of storing and releasing water at the Three Gorges

and Gezhouba dams, which are situated just 38km apart, have created new rapids and new hazards for passing vessels. The Yangtze Waterway Bureau is scouring the world to find available dredgers to deploy on the river. The bureau has repeatedly emphasised that it is prepared to pay market prices for new or second-hand equipment. The key requirement is immediate deployment; new, locally made dredgers have been ordered.

Up-to-date and accurate information is crucial to implementation of a successful dredging programme. With this in mind, an ambitious scheme is under way to build a digital network for the entire waterway, including digital mapping and real-time transfer of data to measure and profile waves, currents, discharges and sedimentation. The authorities hope to get a full picture of the constantly changing river bed and thereby be better able to tackle trouble spots in an efficient and timely manner.

By the end of 2010, the authorities hope to have built a framework for the digital waterway and to have started trial runs on some sections of the Yangtze.

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How clean is your ship?

An environmental ship index will help ports reward vessels that exceed current emissions standards. **Tiedo Vellinga** explains

APH is leading the fight to improve air quality and to combat climate change with its World Ports Climate Initiative (WPCI). An important element within this is the development of an environmental ship index (ESI) that will indicate the environmental performance of seagoing ships.

The index will focus on emissions of air pollutants and the main greenhouse gases. Ports will be able to use it to reward ships that go beyond average environmental performance. When rolled out worldwide, this will act as a significant incentive for ships to become cleaner.

Above all, the index needs to be simple, transparent and easy to determine, use and verify.

At the World Ports Climate Initiative meeting held in Los Angeles in November 2008, the representatives present broadly accepted a proposal for the index that had been developed by the ports of Hamburg, Bremen, Rotterdam, Antwerp and Le Havre. They suggested

that the index measure a ship's emissions performance against the latest IMO standards, which lay down progressively stricter requirements for ships to meet between today and 2020. Ships already meeting those IMO standards that are not yet mandatory would gain

Goals

- Create a reliable index that can be used worldwide to stimulate better environmental performance of seagoing shipping;
- Stimulate investment by ports, shippers and shipowners in cleaner engines and cleaner fuels
- Ensure cleaner air and further awareness of the need for CO₂ management
- Further develop the ESI, especially with a baseline CO₂ index.

a higher index rating in relation to their emissions.

In the coming months, the environmental index proposal will be further developed in collaboration with a wider group of ports and stakeholders, supported by the Clinton Climate Initiative (CCI). This collaboration is seen as very important by the shipowners, who are, after all, a key group of stakeholders. The WPCI intends to establish the ESI later this year and is counting on maximum support from the users (ports and shipowners) and potential users (shippers and maritime service providers).

We will now look at the features of the proposed environmental ship index in more detail.

The index will measure a ship's performance on the pollutants nitrogen oxide (NOx), sulphur oxide (SOx) and particulate matter (PM) and the greenhouse gas carbon dioxide (CO₂). For NOx and SOx, the IMO has laid down detailed rules, and timeframes for compliance, for ships' engines and the fuels they use. This allows a ship's environmental performance to be measured against both the IMO standards and EU regulations for emission control areas (ECAs) and berths. For NOx emissions, at least, the data needed should be available through the existing engine international air pollution prevention (EIAPP) certificate, while bunker fuel delivery notes should state the fuel sulphur content.

At present PM emissions are neither regulated nor certified. To include them would require measurements and development of a baseline, which would make the index costly and complex. However, when you cut SOx emissions, secondary PM emissions also go down. No baseline for ships' CO₂ efficiency has yet been developed, but the IMO has developed an index for the CO₂ performance related to the transported cargo, called the energy efficiency operational index (EEOI).

Environmental indexes used in other transport sectors were examined to see if we could learn lessons from them. Road transport examples include EU passenger car labelling, vehicle registration tax, environmental zoning for trucks, and infrastructure charges in Germany and Switzerland.

For air transport, the European Civil Aviation Conference has developed an index and guidelines for setting airport landing charges based on environmental criteria. These so-called ERLIG recommendations focus on the mass of NOx emitted by the engine according to its type approval.

Our brief evaluation concluded that the road and air indexes are relatively simple, being based on emission standards and type approval data. CO₂ emissions are included only in EU passenger car labelling, which informs consumers about the vehicle's fuel efficiency. The proposed ship index is composed of credits for performance that improves on the new IMO regulations with regard to NOx (Tier 2) and SOx and a bonus for the monitoring and reporting of CO₂ emissions. It is expressed through a continuous scale from 0 to 100.

For NOx, the score is the sum of the performances of the main engine and the auxiliary engines, weighted according to engine power. Better performance by the auxiliary engines will result in a higher score, which seems appropriate given that the main pollution

“ This collaboration is seen as very important by the shipowners, who are a key group of stakeholders ”

problems from shipping affect port areas where emissions from auxiliary engines dominate.

For SOx, a ship will get a better score on the ESI when the sulphur content of the fuel it's using is below the industry average or is less than the permitted sulphur content. Since ships have different fuels on board for the open sea, ECAs and berths, the overall SOx credits are the sum of the incremental improvement per kind of fuel. The weighting can either be equal or based on the fuel consumed.

The weighting between the NOx and SOx improvement is based on the damage cost per kilogramme of pollutants emitted and the average emissions per unit of installed power (kilowatt-hours). Damage costs have been found to be about the same

Next steps

The five northwest European ports mentioned above will now aim to:

- Establish the technical baselines for ship emissions
- Test the formula on a number of ships
- Consult ports and other stakeholders, and adjust the ESI as necessary
- Get approval on the form to be taken by the ESI administration.

for SOx and NOx, but NOx emissions are roughly twice the SOx emissions per unit of work. Along with the bonus for the monitoring and reporting of CO₂, these elements have been incorporated in the formula from which the ESI of an individual ship can be calculated.

Ports will need collectively to establish the formula for the environmental ship index and arrange for a database of compliant ships to be set up. The system will need to be run by an ESI administration – and some ports have suggested a role here for IAPH. A ship will apply for its ESI value by sending in EIAPP certificates and bunker fuel delivery notes. These documents will have to be verified by, for example, a classification society. The ESI administration would then calculate the ESI and enter the details in its database. On entering port, the ship would inform the port authority of its ESI. The port could then apply its preferred instrument for encouraging better environmental performance of seagoing shipping. **PH**

Tiedo Vellinga is director of environment, safety & spatial planning – Maasvlakte 2 at the Port of Rotterdam Authority and associate professor ports and environment at Delft University of Technology, the Netherlands



Training beyond borders

UNCTAD's training scheme encourages established ports to share their ideas and experiences with those in developing countries, **Vincent Valentine** tells *P&H*

Governments have traditionally regarded ports as national strategic assets that should be kept firmly under public control. This began to change in the 1980s and 1990s when there was increasing pressure to modernise ports. The main driver was the need to cater for larger vessels, which demanded greater alongside berth depth, longer quay lengths and wider turning circles.

To avoid excessive calls upon the public purse, governments sought alternative forms of finance to develop their ports. Many countries opted for private-sector participation in services, which began with granting of concessions to private terminal operators. In 1993, 42% of world container throughput passed through state-owned terminals, but by 2006 this figure had dropped to 19%. Today, the majority of the global top 100 container ports have some form of private participation.

As with any other business, ports need to keep

their staff abreast of industry trends, from security and communications to the environment and health and safety. Because of their global scope, terminal operators tend to commission training from private training providers, whereas port authorities – which may be responsible for a single port or an assortment of assets ranging from jetties to full harbours – usually have their own training programmes which are focused on their immediate environment. The port industry, however, is becoming more homogeneous in the sharing of knowledge and best practices.

In the case of container ports, the customers will either be the liner shipping companies or the terminal operators, both of which have seen significant growth in capacity and market share. As throughput has grown, the port sector itself has come under closer scrutiny – particularly with regard to management's role in community decisions.

Port authorities have a pivotal role to play in



Trainees and trainers – managers from five ports met in Dublin to learn from its port community

shaping their country's future and can be key players in national development strategies, as they form an important link to local and national governments. To do this successfully, though, they need to bring together numerous stakeholders – including players on the seaward side, from the hinterland, government agencies and private operators.

The Port Training Programme initiated by UNCTAD involves collaboration between industry partners, in-house experts and other specialist agencies. It works on the principle of established ports sharing their

knowledge and expertise with developing ports.

One example is the Port of Dublin, which has been in talks with several Indonesian ports about partnership opportunities. As well as enabling both parties to collaborate in new projects, Port of Dublin's personnel have been able to develop teaching skills and extend their own knowledge in the unique way that teaching allows. That, in turn helps managers become more competent and confident in their roles.

The modern port manager needs to be aware of the factors and trends that are shaping the industry. And at a time when the world's market economies are undergoing massive and rapid change, it's essential that managers understand, for example, the connotations of the world orderbook of merchant vessels – currently more than 10,000 ships above 1,000gt. This represents an increase of about 28% in the number of vessels over 1,000gt. They will all have to dock somewhere, so more congestion is likely, unless ports utilise their resources more efficiently.

So far, the UNCTAD Port Training Programme has helped more than 400 senior managers and around 600 middle managers – some 180 of whom are women – in over 15 countries. It has achieved this through a combination of in-house expertise and practitioners from port partners around the world. A number of networks have been established, based on the common language of the members, even if this is not necessarily their first language. For instance, there are French, Spanish, Portuguese and now English-speaking networks.

The English-speaking network was launched last year in Dublin (see box) with the assistance of the Dublin Port Company and Irish Aid. The launch culminated in the signing of the Dublin Declaration by 60 representatives from eight African and five Asian countries. Among the network's growing membership base are ports in Ghana, Indonesia, Malaysia, the Maldives and Tanzania.

The training material consists of practical manuals for participants and instructors, group exercises and tests. The programme has a web-based element that, as well as providing a resource centre for students and lecturers alike, acts as a forum for discussing theoretical and practical issues.

The programme also makes use of material developed by other UN agencies and donors such as a highly interactive computer-based training module in HIV/AIDS awareness and prevention.

In combination, these activities support the integration of developing economies into the overall world economy. They also help countries progress towards the Millennium Development Goals in, for example, gender equality, environmental sustainability and global partnerships. **PH**

Vincent Valentine is economic affairs officer for the Transport Section, Division on Technology and Logistics, at UNCTAD. The views expressed in this article are the author's alone and do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations.

Training the trainers

Senior managers from five countries where English is spoken met in Dublin, Ireland, for an UNCTAD-instigated Training the Trainers workshop from late September to early October. With the skills and knowledge they have acquired, the participants can serve as trainers in their own ports and implement the training at a national level, UNCTAD claims.

The delegates were talked through four modules from the UNCTAD Port Management Training Programme – International Trade and Transport; Organisation of a Port System; The Functioning of a Port System; and Future Challenges of the Port.

The workshop was delivered by 31 instructors from the port community of Dublin, UNCTAD and other port partners. Of the 15 participants, three came from the ports of Tema, Takoradi and Accra in Ghana; seven from the Indonesian ports of Sabang and Medam; one from the Port of Kuantan, Malaysia; one from Male in the Maldives; and three from Dar-Es-Salaam, Tanzania.

Small boats will have no place to hide

Smaller vessels will be required to have AIS systems aboard and notify US authorities of their movements under a proposed rule put forward by the US Coast Guard in December.

For some years the USCG has been considering how best to cope with potential threats posed by the thousands of smaller vessels that transit US waters. Electronic tracking has always been at the top of the suggestion list.

Under the proposed rule, all foreign vessels regardless of size departing from, coming to or coming from a US port – and all US commercial vessels, regardless of size, coming to a US port from a foreign port – would be required to file a notice of arrival or departure. The AIS carriage requirement would be expanded for US vessels and would be required on all domestic vessels of greater than 500gt. The geographic limitation of the AIS requirement to vessel traffic service areas would be eliminated, so the carriage requirement would apply to covered vessels operating in all US navigable waters.

Existing exemptions for fishing boats, small passenger vessels and pleasure vessels would be revoked. “Those types of exemptions ended with the Mumbai attacks,” maritime attorney Dennis Bryant declared to *P&H*. “The use of a fishing boat to facilitate that attack – on top of small vessels being used in the *Cole* and *Limburg* attacks – clearly illustrates the threat from smaller craft.”

Recognising that small vessels pose a threat to commercial shipping and port facilities, the USCG held a small vessel security summit in 2007. The latest move emerged from discussions between the industry, security firms and intelligence insiders that began at that conference. Further enhancements are expected and while licensing of small vessel operators is doubtful, the USCG is likely to mandate that all operators and occupants of vessels carry identification when on the water.



Photo: Despina Bara

IMO made progress on its goal-based standards for ship construction

Progress at MSC 85

The 85th meeting of the IMO's Maritime Safety Committee finished with several achievements to its credit. Various criteria were drawn up and decisions made at the event, held in London from 26 November to 5 December.

The Intact Stability Code has been adopted and suitable amendments to SOLAS have been made. The code presents mandatory and recommended stability criteria and other safety measures that include the safe operation of ships and the minimising of risk to ships, their crews and to the environment.

Ship types embraced by the code are listed as cargo vessels (including ships with timber deck cargoes), passenger ships, fishing vessels, special purpose ships, offshore supply vessels, mobile offshore drilling rigs, pontoons, cargo ships carrying containers on deck and container vessels. All these types of vessel have come under scrutiny recently because of casualty reports.

SOLAS was also amended with the adoption of the Solid Bulk Cargoes Code. The code highlights the dangers associated with certain types of bulk cargoes – for

example, some may liquefy under particular conditions while others pose chemical hazards. There are test procedures to be followed, emergency schedules and safety precautions to be adopted, especially in enclosed spaces.

Significant progress was made on goal-based ship construction standards for tankers and bulk carriers. Advances were also made in putting together guidelines on the mandatory carriage of a ship construction file, which all new ships will need to have on board. However, some shipbuilding nations expressed concerns about intellectual property rights – they were clearly worried about giving away design secrets.

The Long Range Identification and Tracking (LRIT) debate continued and the application of these mandatory SOLAS provisions next year was generally seen as a welcome addition to the operation of port state control. More 21st-century gadgetry was addressed when e-navigation strategies and mandatory carriage requirements for ECDIS and for bridge navigational watch alarm systems were debated.

Much discussion centred on

piracy problems off the coast of Somalia. The capture of the VLCC *Sirius Star* on 15 November helped concentrate minds, and the future of the nearly 300 seafarers who were being held captive in the Horn of Africa continued to worry many delegates.

Concern was expressed too about fatalities at sea – more than 1,600 seafarers have died in the past 12 months.

Finally, India was praised for introducing a paper that makes it mandatory for all ships to carry trainees. Previously, IMO secretary general Efthymios Mitropoulos had drawn the attention of the Maritime Safety Committee to a report from maritime consultants Drewry suggesting that, without concerted action, the global shortfall in the number of ships' officers could reach 84,000 within the next four years.

All present were agreed that something needs to be done in terms of recruiting and training new officers. IMO's response was to launch, in concert with allied organisations, its 'Go to Sea!' campaign – see page 43.

The next meeting, MSC 86, will be held in May.

Compensation compromise on places of refuge

European Union negotiations on the Third Maritime Safety Package were concluded in December with both Parliament and the Council of Ministers reaching agreement on all proposals – including the controversial issues on civil liability and flag state obligations.

Of most direct interest to ports is the directive proposal likely to take effect by 2011 on vessel traffic monitoring and its provisions

on places of refuge. Parliament was not able to keep to its original position regarding the obligation on competent authorities to compensate economic loss suffered by a port when accommodating a ship in distress.

A compromise was found that puts a moral obligation on EU member states to have compensation mechanisms in place and asks the EC to examine existing mechanisms and

evaluate the various policy options by 2011.

European Sea Ports Organisation secretary general Patrick Verhoeven commented: "A clearer obligation on member states would have been preferable, but this compromise certainly supports the cause of port authorities. The issue of economic loss is now clearly recognised in the directive, which is a great contrast with the initial proposals."

Climate change targets on horizon?

This December, Copenhagen will host the biggest environmental conference since Kyoto in 1997 – and there are major concerns that the maritime industry will be heavily affected.

Under the banner COP 15 (Conference of Parties), the United Nations Framework Convention on Climate Change (UNFCCC) will gather representatives from the governments of around 170 countries to discuss measures that could both undermine the IMO and put a trading scheme in place that may have the effect of deterring the development of green technologies.

COP 14, held last month in Poznań, Poland, made it clear that the aim will be to set an emissions reduction roadmap in succession to the Kyoto Protocol – which expires in 2012. And there is an impetus, environmental scientists say, to develop a stronger set of emissions targets given the lack of development to date.

The Copenhagen COP, which will be hosted by Danish climate and energy minister Connie Hedegaard and Prime Minister Anders Fogh Rasmussen from 7 to 18 December 2009, will be the last meeting of the government parties before the current protocol expires. The Danish government is making a major effort to ensure that a Copenhagen Protocol is agreed upon and is successful.

Two proposals in particular are causing serious debate within the maritime industry:

1. Development of a two-tier approach to emissions reductions



COP could create higher benchmarks for emissions cuts than IMO

for member states, which could undermine the IMO's efforts. It is feared that if the IMO does not do enough on legal controls of CO₂, then the Kyoto Protocol's tier one signatories will have tougher targets imposed on them. That, say shipping experts, could lead to a demise of Western flags as owners move to already popular registers that have not signed up to the UNFCCC emissions targets. 2. Inclusion of shipping in the UNFCCC's emissions trading schemes that currently only apply to land-based industries. Political arrangements to enforce such a scheme on an international industry like shipping are certain to generate heated debate.

Jørgen Hammer Hansen, director general of the Danish Maritime Authority, which supports the IMO's position, commented: "We've put a lot of effort into developing proposals to move this issue ahead in the IMO, including proposals for the

nine principles for future regulation of greenhouse gases. We've presented a proposal for the design index and have presented a market-based scheme."

He added that DMA is working closely on its environmental goals with the Danish climate and energy ministry to reach consensus with the targets of the UNFCCC. But lack of progress in developing regulations for shipping at the last meeting of the IMO's Marine Environmental Protection Committee is worrying, Hammer Hansen admitted. "We had good success with adopting Marpol Annex VI, but with greenhouse gases things are moving slowly and MEPC 58 was disappointing," he said.

The IMO needs to find solutions to the challenge, he added, otherwise its authority as the prime regulator of international shipping will be seriously undermined. Should it fail, COP 15 may adopt sweeping targets, that

could result in "a patchwork of different regional solutions that the shipping industry will have to cope with," he said.

Hammer Hansen sets store by DMA's market-based scheme, which will allow shipping to become part of an emissions trading scheme via a levy on bunker sales that would contribute to a fund to buy quotas to offset shipping's greenhouse gas footprint.

"It would meet two important challenges," he continued. "It would apply to all ships regardless of flag and secondly it would meet the challenge of a common, but differentiated, approach as when you buy quotas you would fund projects in developing countries and the development of technology in these countries."

Critics maintain that the scheme will give shippers little incentive to use and develop technologies to take positive steps in reducing their emissions – it would be cheaper and easier to pay the levy.

Will that put DMA and IMO at odds with each other?

"I can't see these two sides as opponents," Hammer Hansen concluded. "Denmark and the EU want to see an international solution by the IMO... but if the IMO cannot deliver, there will be other ways of doing things."

"I do not know how this can be settled in the UNFCCC, but it will be discussed there, though we prefer the IMO track as it makes it possible to live up to the nine fundamental principles that have been agreed."

Photo: Dietmar Hasenpuch



The plight of the master and chief officer of the *Hebei Spirit* caused concern at the industry forum

Photo: Reuters

Round Table joined forces with the International Group of P&I Clubs and the International Transport Workers' Federation to deliver a statement conveying the industry's concern at the continued detention. In the Round Table's view, the detention appears to be contrary to the principles established in the joint IMO/ILO *Guidelines on the Fair Treatment of Seafarers in the Event of a Maritime Accident*.

The industry's response to the challenge of greenhouse gases (GHG) in relation to shipping was also covered, the chairmen noting that many shipowners had already taken measures to reduce emissions of these gases. They agreed, however, that certain technical, operational and commercial issues required further investigation. They reaffirmed that the associations will continue to be actively engaged in the GHG debate.

Finally, the chairmen reiterated their associations' support-in-principle for the Energy Efficiency Design Index (see page 36) for new vessels and stated they would engage in the debate about its method of application and the gathering of data to test the formula.

The Round Table has already put forward the concept of a Ship Efficiency Management Plan at the IMO to promote best practice in reducing carbon dioxide emissions from existing vessels and to enable shipping companies to work with other stakeholders – including ports and terminals – to monitor for continuous improvement in the energy efficiency of their vessels.

Bold plans in Beijing

Piracy, the plight of the *Hebei Spirit* officers and practical measures to reduce ships' greenhouse gas emissions were on the agenda of the Round Table of International Shipping Associations at its November meeting in Beijing.

The chairmen of BIMCO, ICS, Intercargo and Intertanko, who together comprise the Round Table, deplored the state of lawlessness and escalation of piracy attacks in the Gulf of Aden. They commended those states that have provided warships, which are believed to have had a

mitigating effect on attacks. Recent events, however, indicated that the warships were too few and too far apart. And there was a fundamental need for co-ordination in their use, along with airborne surveillance and support, the chairmen felt.

The Round Table reaffirmed its opposition to the use of armed guards aboard merchant ships, on the grounds that this is likely to lead to an escalation in the level of violence and, even more importantly, it would most likely put the crews in harm's way.

Instead, the chairmen urged

shipowners to ensure their ships:

- Strictly follow recommended passive defensive measures when transiting the Gulf of Aden and seas off the Somali coast
- Maintain contact with the naval authorities
- Report any attacks or suspicious activities to the IMO.

The group expressed dismay over the continuing detention of two officers from the *Hebei Spirit* in Korea, despite their having been found innocent of all charges by a Korean court in June 2008. At a recent session of IMO's legal committee, the

Remove the bottlenecks, demand German ports

Germany must continue efforts to upgrade maritime and port hinterland infrastructure despite a slowdown in traffic growth and the financial crisis, the Association of German Port Companies (ZDS) stated last month.

Construction of new road and railway links for ports would not only provide relief for terminals and transport

operators, but could also help bolster the wider economy in the upcoming recession, ZDS noted, adding: "Additional funds for port infrastructure are urgently required to make sure that traffic growth is not constrained by bottlenecks."

Cargo throughput in all German ports is expected to increase by 3% to 322M tonnes this year. While ZDS

expressed "cautious optimism" over the federal government's master plan for goods transport and logistics and the planned 'national port concept' – major policy initiatives aimed at improving and realigning transport infrastructure projects – it felt that individual ports and regions should not be barred from pursuing their own development strategies.

Go to sea! Concerted recruitment campaign

A new IMO campaign dubbed Go to Sea! aims to attract new blood to the shipping industry.

It is the latest attempt to address the worldwide shortage of seafarers, especially officers, that threatens the future of international shipping.

The campaign is a joint effort of IMO, the International Labour Organization, the Round Table of shipping organisations – BIMCO, ICS/ISF, Intercargo and Intertanko – and the International Transport Workers' Federation. They are calling on governments, industry and relevant international organisations

to take concerted action to increase the pace of seafarer recruitment.

The move was given added urgency by a recent report from London-based Drewry Shipping Consultants stating that if supply increases by no more than the current rate, the present shortage of 33,000 qualified ships' officers will have grown to nearly 84,000 by 2012.

Speaking at the campaign launch in November, IMO secretary general Efthimios Mitropoulos said: "The shipping industry can provide the basis for a fulfilling and satisfying lifelong career and the problem is one of recruitment, rather than retention."

The shipping industry was urged to take the lead and to promote itself more actively through the media – the internet in particular – by:

- Using key industry figures as examples of career progression
- Doing more to make life on board and away from home more akin to the life enjoyed by workers ashore – including shorter duty periods, long-term contracts and better leave
- Encouraging women to work in the seafaring profession
- Supporting training initiatives
- Promoting the industry at non-maritime events.



Photo: Malaysian Maritime Academy

More paperwork for US shipments

New rules under the the Security and Accountability for Every Port Act of 2006 (SAFE) and the Trade Act of 2002 are designed to prevent terrorist weapons from being smuggled into the US.

Called the Importer Security Filing and Additional Carrier Requirements Interim Final Rules (IMSF & ACRIFR), they will require both importers and carriers to submit additional cargo information to US Customs and Border Protection (CBP) before that cargo is shipped into the US.

The regulations follow on from the notice of proposed rulemaking published in January 2008, in the course of which CBP evaluated about 200 public comments.

In addition to existing carrier requirements pursuant to the 24-hour rule, the interim final rule requires carriers to:

- Submit a vessel stowage plan via the automated manifest system, secure file transfer protocol or email, so that it is received by CBP

no later than 48 hours after the carrier's departure from the last foreign port. For voyages taking less than 48 hours, CBP must receive the information before the vessel makes its first call in the US.

- Submit container status messages (CSM) to CBP daily for all containers containing cargo destined for the US.

For importers, the interim final rule requires:

- An importer security filing (ISF), covering eight data elements, generally no later than 24 hours before the cargo is loaded aboard a vessel destined for the United States, including the seller, buyer, manufacturer and country of origin.

Full details are listed in the 57-page PDF file at <http://edocket.access.gpo.gov/2008/pdf/E8-27048.pdf>.

The IMSF & ACRIFR has been submitted to the Federal Register and will take legal effect 60 days after publication.

For more information visit www.cbp.gov.



Photo: iStockphoto



Oriented to the market –
Open to the future

26th IAPH World Port Conference
Cotone Congressi Genova, Genoa, Italy
25-29 May 2009

The 2009 conference will reflect the need for the global ports industry to work openly with all stakeholders to address the challenges and opportunities facing ports as critical segments in international logistics chains, both today and in the future.

Key Participants Will Include:

- **Prof Ogunlade R Davidson**, Co-Chair, Working Group III, Intergovernmental Panel on Climate Change (IPCC)
- **Dr. Geraldine Knatz**, Executive Director, Port of Los Angeles
- **Mr H. Thomas Kornegay**, Immediate Past President/Executive Director, IAPH/Port of Houston Authority
- **Mr Mariano Navas**, President, Puertos del Estado
- **Jamal Majid Bin Thaniah**, Executive Vice Chairman and Group CEO, Ports & Free Zones World, DP World
- **Mr Patrice M. Pelletier**, CEO, Port of Montreal
- **Mr Khomotsu Philela**, CEO, Transnet National Ports Authority
- **Mr Victor Schoenmakers**, President, ESPO
- **Mr Erich Staake**, President and CEO, Duisburger Hafen AG
- **Mr Bernard S. Groseclose Jr**, Second Vice President/President and CEO, IAPH/ South Carolina States Ports Authority
- **Mr Lim Heng Tay**, Third Vice President/Chief Executive, IAPH/Maritime & Port Administration of Singapore

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Delegates of the World Ports Climate Initiative in San Pedro, US, in November

Time for action on climate change

The World Ports Climate Initiative (WPCI) proved that action on behalf of the environment is indeed still possible, despite increasingly challenging markets and the effects of the international credit crunch.

Fifty experts and representatives from port authorities across Europe, the Americas, Africa and Asia attended the event, which was sponsored by the Port of Los Angeles and IAPH and held on 24 and 25 November. Delegates shared experiences about the projects that they have been busy implementing. The round table meeting opened up discussion on ways to monitor and reduce carbon dioxide (CO₂) and other emissions, such as sulphur oxide (SO_x), nitrogen oxide (NO_x) and particulate matter (PM), in ports.

Geraldine Knatz, executive director of the Port of Los Angeles, stressed a "critical need" to involve as many ports as possible in WPCI activity, asking for special co-operation from regional port associations to achieve this.

Dr Satoshi Inoue, secretary general of IAPH, expressed the association's full support for the WPCI in order to promote

undertakings made by the world's ports to improve port air quality and reduce greenhouse gas emissions. He posed the questions: where are we now; what can we do internationally; and how can we keep moving forward? He highlighted the real need for ports to work with each other and share their experiences and thoughts.

It was an encouraging reflection on the C40 World Ports Climate Conference held in Rotterdam in July 2008, at which the basis for the initiative was born when 55 signatories put their names to a declaration. But as Geraldine Knatz enthused in her opening speech at the November meeting: "We need to stop talking and start doing" – and that's exactly what appears to be happening.

The most significant outcome of the event was the adoption of a draft framework for an environmental ship index (see feature on page 36). This was considered to be a useful starting point for the monitoring of emissions in ports. The refrain 'you can't manage what you can't measure' came to be a particularly well-used phrase as individual

ports detailed their own initiatives.

Among these were the ports of Long Beach, Los Angeles, Seattle and Rotterdam. Most detailed how they started measuring emissions created by the port itself – for example, from the administration buildings and port facilities. The next step is seen as tackling the wider issues of monitoring emissions created by ships and the rest of the logistics chain.

Other ports offered information about the innovative environment-friendly equipment they have been trialling and swapped stories on their effectiveness.

It was agreed that the IAPH *Tool box for clean air programmes* should be developed as a tool to keep the industry abreast of the ideas discussed at WPCI. The tool box is seen as an ideal resource for ports that want to pool ideas and learn from others' experiences.

In keeping with this theme, the concept of a 'project port' was established. A WPCI-designated project port will work with other ports to assist implementation of the emissions inventory and other actions to promote greener operations. A selection of the ports present at the meeting

volunteered to offer assistance in this way.

Speaking from a regional perspective, Patrick Verhoeven, secretary general of the European Sea Ports Association (ESPO), and Kurt Nagle, president and CEO of the American Association of Port Authorities (AAPA), further highlighted the importance of involving ports and stakeholders in WPCI, by promoting the knock-on benefits of climate action, such as improved efficiency and reduced costs.

Both also stressed that any WPCI projects should be in keeping with global and regional frameworks, such as national and regional policies and IMO regulation.

No one present underestimated the amount of effort required to co-ordinate this important body of work. On this note, it was agreed that Geraldine Knatz, chair of the IAPH Port Environment Committee, should chair WPCI and act as its figurehead and promoter of its ideals. IAPH managing director Fer van de Laar, agreed to act as director.

WPCI is pleased to be open to all ports worldwide, not only members of IAPH.

New VP for World Ports

On 5 December the IAPH Board unanimously approved Mario Caselli (pictured below) as the new conference vice-president. He succeeds Dr Maurizio Bussolo who recently left the port and stepped down from the role. Caselli has been closely working with Dr Bussolo in preparation of the 26th World Ports Conference in Genoa.

Caselli's commitment to this event is clear: he sees it as an ideal opportunity for port representatives to update themselves "on the challenges faced and the solutions we have to find". The role of ports is changing, he told *P&H*. He believes that ports should realign themselves with these changes to make themselves open to future markets.

The two overarching topics for discussion at the event are set to be climate change and globalisation. Caselli told *Ports & Harbors*: "Globalisation presents many future challenges for ports". He also acknowledged the need for long-term commitment to the climate change cause.

He cites other issues set to be hot topics as security, legislation and unfair competition, and ports as part of the intermodal logistics chain.

Caselli is pleased to be a key player in showcasing Port of Genoa's capabilities – its facilities and services – as Italy's most important port. He hopes that the city's impressive history and the conference's well-informed programme will tempt port representatives to join the debate in Genoa in May.



Get ready for Genoa

There are many reasons to attend the 26th IAPH World Ports Conference in Genoa on 25–29 May. First, it will provide an ideal forum to meet people from ports and associations from all over the world. Second, it is a unique opportunity to discuss some of the most important issues facing the ports industry today. Under the conference title: *Open to the market and open to the future*, delegates will be invited to consider seriously the effects of climate change and globalisation.

These overriding themes will provide a backdrop to the working group sessions during which delegates will get the chance to discuss topics such as management and strategy, security and safety, and logistics. The conference will be available in English, Italian, Chinese, French and Japanese languages, reflecting the event's truly international scope.



Photo: Southern Cross Maritime

Historic Genoa is the setting for IAPH's conference

Attached to the conference, there will be an exhibition featuring port-related services, systems and goods, and

companies showcasing their latest technology.

The event's location is another reason to attend. The beautiful city of Genoa will be at the heart of the five-day event and offers a wealth of history and entertainment to be enjoyed during the Mediterranean evenings.

An active three-day partners' programme will be available, including an organised tour of the historic city; a shopping trip at Serravalle Outlet where designer products are available at a reduced prices, and a trip to Pisa.

To benefit from the lower booking fee, *P&H* readers are reminded that they should book before 1 February to qualify. Early planning is also advised as hotels may book up quickly. A shuttle bus will run to the conference centre from a selection of hotels.

More info: www.iaphconference.com/files/iaph09_brochure_version_2.pdf

Malaysia and IAPH look at customs systems

Thirteen representatives from Malaysian governmental agencies, port authorities and port operators visited the IAPH

secretariat in Tokyo on 6 November, accompanied by Soka Kikuchi, IAPH life supporting member and Bintulu port representative in

Japan. The main purpose of their visit was to study a 'single window' system for port and customs procedures in Japan.

Membership notes

The IAPH secretariat is pleased to announce that a new member has joined the association.

Associate member

Aitkenspence Maritime

Address: No 315, Vauxhall Street
Colombo 2, Sri Lanka
Telephone: +94-11-2308110
Fax: +94-11-2308125
Email: parakrama@aitkenspence.lk

Website: www.aitkenspence.lk
Representative: Dr Parakrama Dissanayake
chairman, maritime
Nature of business activities: launching container
port productivity enhancement programmes,
training of port staff and port consultancy services



Visit by Clinton Foundation

Wiert-Jan De Raaf, director of ports and shipping at the Clinton Foundation, visited the IAPH secretariat in Tokyo on 27 October. He and IAPH secretary general Inoue discussed how the two organisations could

co-operate in following up the World Ports Climate Declaration adopted at the WPCF Conference last July. They also discussed the preparations for the WPCI Symposium in Los Angeles – see page 45.



The IAPH Committee on Trade Facilitation and PCS met in Barcelona

Learning from PCS projects

The IAPH Committee on Trade Facilitation and Port Community Systems is developing a glossary of the basic terminology that is frequently used in the committee's discussions. The information would be available to IAPH members through the website.

This was just one of the topics on the agenda at the committee's meeting held on 7 November in Barcelona, Spain.

Work also continued on a project that identifies experiences and lessons learned in relation to port community systems (PCS). It

was suggested that a Chinese and Indian port be studied, as well as one from each coast of the US.

It was agreed that work on both of these topics be continued over the next two years. The rest of the work programme for 2009–2011 was also discussed and includes:

- Continued monitoring of trade facilitation and PCS discussion within international organisations
- Creating global knowledge of the Shortsea XML (Extensible Markup Language) project. The concept aims to streamline administration processes.

Dates for your diary

A selection of maritime events

January

- 14** BPO Seminar on Onshore Energy Supply – Tallinn, Estonia
More info: www.bpoports.com
- 15–16** Shifting International Trade Routes – Tampa, US
More info: www.aapa-ports.org
- 18–19** Green Award Foundation 15th Anniversary Seminar – Dubai
More info: www.greenaward.org
- 21–23** SMM Istanbul 2009 – Istanbul, Turkey
More info: www.hamburg-messe.de
- 27–29** Maritime Security – Amsterdam, Netherlands
More info: www.marcusevans.com
- 28–29** Global Ports Strategy Conference – London, UK
More info: www.ibcglobalconferences.com

February

- 1–3** Middle East Port Development 2009 – Dubai, UAE
More info: www.meedconferences.com
- 3–5** Latin American and Caribbean Executive Management Conference – Miami, US
More info: www.aapa-ports.org
- 4–5** US Exports Conference – New York, US
More info: www.joc.com/conferences/USEC/index.asp
- 12–13** 5th Philippine Ports & Shipping 2009 – Manila, Philippines
More info: www.transportevents.com
- 18–20** TranSec India Expo 2009 – Mumbai, India
More info: www.transecindia.com
- 25–26** GreenPort Ecoports 2009 – Naples, Italy
More info: www.green-port.net

March

- 3–5** TOC Asia 2009 – Shenzhen, China
More info: www.tocevents-asia.com
- 2–13** Seminar on Port Logistics – Antwerp, Belgium
More info: www.portofantwerpen.be/APEC
- 25–26** 7th Intermodal Africa – Dakar, Senegal
More info: www.transportevents.com
- 25–28** Europort Istanbul 2009 – Istanbul, Turkey
More info: www.europorteurasia.com/en/default.asp

April

- 15** Accessing China's interior – Shanghai, China
More info: www.YantzeBusinessServices.com
- 16** Wuhan logistics fact-finding mission – Wuhan, China
More info: www.YantzeBusinessServices.com

May

- 25–29** 26th IAPH World Ports Conference – Genoa, Italy
More info: www.iaphconference.it



Natural balance

With Freeport of Riga's cargo handling operations on the move, it's time to find synergies between development and protecting local nature areas. **Leonids Longinovs**, CEO of Freeport of Riga and IAPH Executive Committee member, explains why

“ A decision has to be made between the efficient economic development of the Latvian state and Riga city or creating natural parks ”

Situated on an ancient trade route between southeast Asia and Europe, Riga has been a commercial and shipping centre for more than 800 years. Its role as an important Baltic port still continues.

Today, Freeport of Riga services transcontinental trade in an east-west direction and receives deepsea container vessels. It aims to become a regional logistics centre for the distribution of containerised cargo into the Baltic states, Russia and other countries from the Commonwealth of Independent States, as well as southeast Europe and the Middle East, thus creating a transport network that could be considered the 'New Silk Road'.

Increasing cargo turnover has not been the only challenge during my 11 years in office. The wellbeing of the city – which is adjacent to the port – has also been, and continues to be, considered.

Under the Riga City Development Plan 2006–2018, port operations will be moving downstream from the city centre towards the sea and closer to the mouth of the Daugava River. The current proximity of the city's residents has

rendered unacceptable some operations associated with merchant shipping.

The former port territories will be redeveloped into new residential, commercial and recreational areas.

In order to carry out port operations in the new location, land has to be reclaimed and well-equipped new terminals built. However, this remains a contentious issue, as the relevant authorities have given the proposed sites the status of protected nature areas. This, of course, is in conflict with the dynamic development of the port. Priorities will have to be considered objectively and a decision ultimately made as to what is more important – the efficient economic development of the Latvian state and Riga city, or creating natural parks on those vacant territories.

To ensure sustainable development of the port it is crucial to find the right balance between these two sensitive issues.

We shall handle that difficult task and I am sure that there is a tremendous growth potential for the region and the Freeport of Riga. Its unique geographical position could expand the port into a significant global transportation centre. **RL**

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Port Authority

Zeeland Seaports

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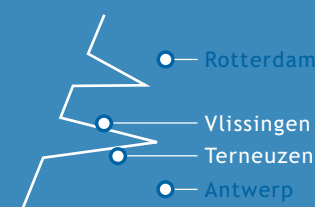
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The seaports of Terneuzen and Vlissingen form a link with the other continents. They guarantee a fast flow of goods due to their good accessibility, their location on deep seawater and their excellent facilities. Strategically they are located between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



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