

November
1999 Vol.44 No.9

Ports & Harbors



IAPH
May 19 - 26
Du 19 au 26 mai
AIPH



Port of Constantza

Constantza

1st Terminal



Container Terminal



Shipyard



South

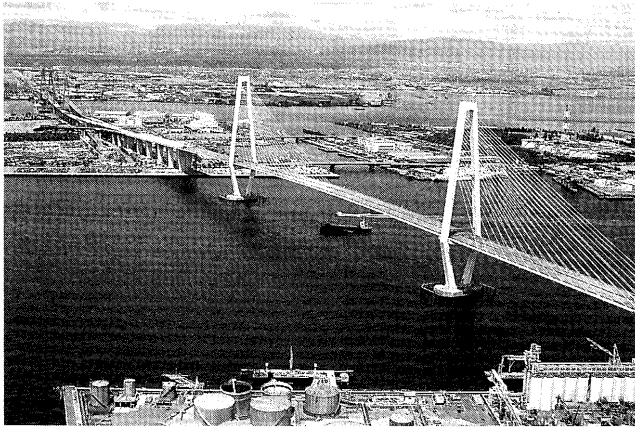


Inside:

• IAPH Head Office to Move to High-rise Building on Waterfront • IAPH Observes 44th Anniversary of Founding • Taiwan Struck by Huge Earthquake • An Assessment of The U.S. Marine Transportation System: A Report to Congress • Operations Begin at Inner Port of Suape • Rotterdam: 100th Recipient of Green Award • Constantza - The Eastern Gateway of Europe • Brisbane: 1st Environment Performance Report • Kaohsiung Harbor Bureau Y2K Contingency Plan • APP is Preparing for New Millennium • PAT Completes Y2K Contingency Plans

The Port of Nagoya Provides the Best!

-Integrated Road Network



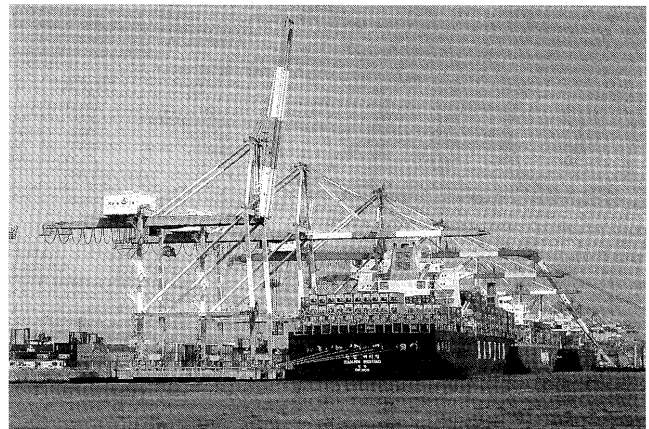
-Taking full advantage of its strategic location, the Port of Nagoya provides you fast access to every part of Japan.

-The three Meiko Bridges enhance the integrated road network around the port by connecting major national highways.

-Efficient Cargo Handling

-With 8 Over-Panamax gantry cranes, our container terminals offer you prompt and efficient service.

-The Port of Nagoya container terminals welcome vessels 24 hours a day.



-Expanding Capacity



-Located on the port's west side is our newest container terminal, Nabeta. In addition to a high-standard container berth, opened in 1997, the adjacent berth incorporating an anti-earthquake design will be completed in FY2000. Furthermore, three more berths are planned which will eventually make this pier a major container terminal at the Port of Nagoya with 5 contiguous berths totaling 1,650 meters.

NAGOYA PORT AUTHORITY

8-21 Irifune 1-chome, Minato-ku, Nagoya 455-8686, JAPAN

TEL: 81-52-654-7840 FAX: 81-52-654-7995

homepage: <http://www.port-authority.minato.nagoya.jp/>



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(1999 - 2001)

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Nagoya Port Authority
Japan

Second Vice-President

Pieter Struijs
Vice Chairman/Executive Director
Shipping
Rotterdam Municipal Port Management
Netherlands

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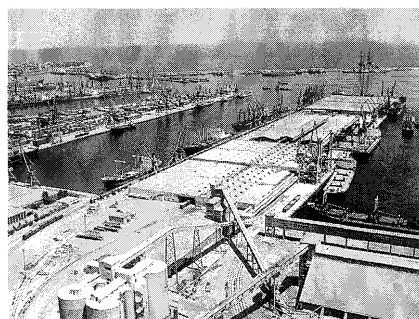
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Executive Director
Port of Houston
USA

Immediate Past President

Jean Smagghe
Executive Vice-President
International Affairs of
Association of French
Ports (UPACCIM)
France

Secretary General

Satoshi Inoue
IAPH Head Office
Tokyo
Japan



THE Port of Constantza:
Constantza is the main port of Romania and the largest port of the Black Sea, covering a surface of 3,600ha and having 133 berths with a quay length of 28.5km. The port complex consists of the old port northwards and the new port southwards, offering a total yearly handling capacity of 85 million tons. Related article on page 33.

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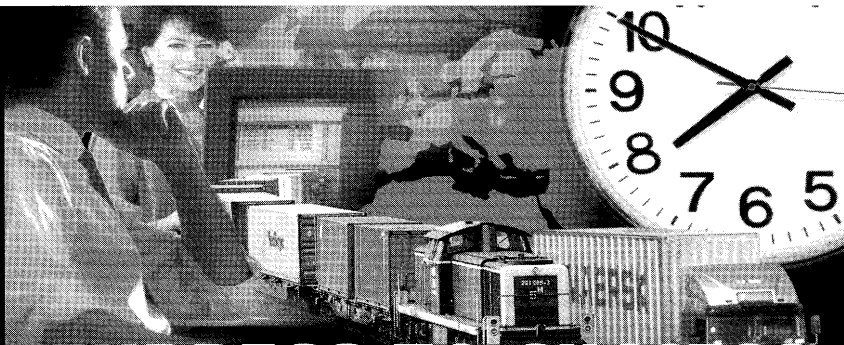
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Local contacts:

Antwerp
Phone: + 32 3/20 20-430
Fax: + 32 3/20 20-433

Berlin
Phone: + 49 30/54 99 26-0
Fax: + 49 30/54 99 26-70

Bremen
Phone: + 49 421/1 73 55-0
Fax: + 49 421/1 73 55-20

Hamburg
Phone: + 49 40/36 13 05-0
Fax: + 49 40/36 13 05-20

Duisburg
Phone: + 49 203/80 91-0
Fax: + 49 203/81 46-6

Frankfurt / a.M.
Phone: + 49 69/2 38 92 09
Fax: + 49 69/2 53 39 7

Moscow
Phone: + 7 095/2 09 98 81/91
Fax: + 7 095/2 09 98 76

Munich
Phone: + 49 89/54 91 57-0
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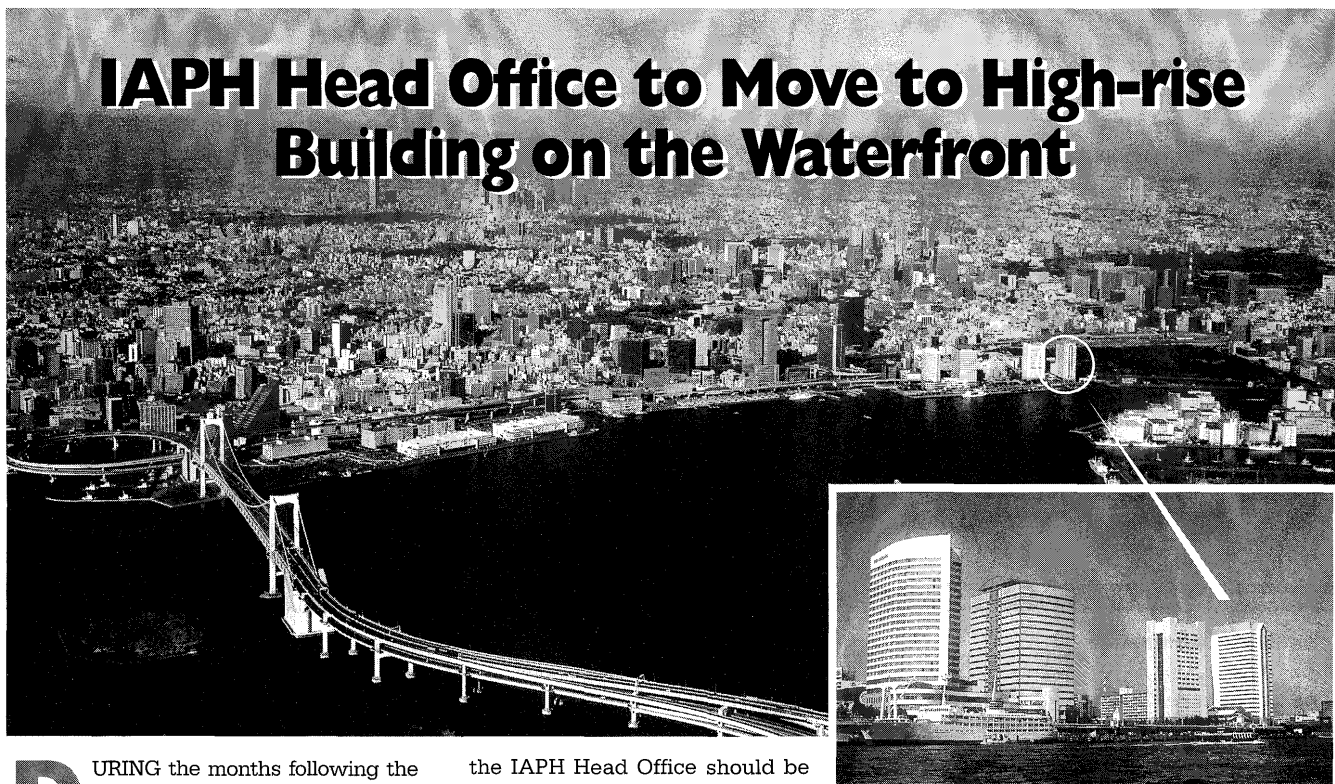
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Fax: 03-3542-5086

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IAPH ANNOUNCEMENTS AND NEWS

IAPH Head Office to Move to High-rise Building on the Waterfront



DURING the months following the IAPH Conference held in Malaysia in May this year, Dr. Satoshi Inoue, Secretary General of IAPH, has been energetically leading the Secretariat team to find a new location for the Head Office. The idea of relocating the Tokyo Head Office was broached by the officers when they visited Japan in October 1998 to attend the IAPH Japan Seminar in Tokyo and the officers' meeting in Nagoya, hosted by Dr. Akio Someya, the then Second Vice-President of IAPH and Executive Vice President of the Nagoya Port Authority.

While in Kuala Lumpur, President Taddeo asked Secretary General Inoue to come up with a feasibility report on the relocation of the Head Office to premises more spacious than the current office, which our officers found too small and cramped for the headquarters of an international organization such as IAPH, with a membership encompassing over 80 countries, especially when the Head Office receives visitors from all over the world. In fact, when the Head Office was moved from the Kotohira Kaikan Building in 1996, the Secretariat had to accept a reduced amount of space in order to save on rents at a time of skyrocketing land prices.

However, the officers who met in Japan took the view that the setting for

the IAPH Head Office should be improved in order at least to meet minimum standards of comfort for the people who work there and so as not to discourage visitors from IAPH member organizations when they drop in our headquarters in Tokyo.

By the end of August, Dr. Inoue had finished the feasibility study and submitted to the President, Vice-Presidents and the chair of the Finance Committee a detailed report on the results of his study and of his preliminary negotiations with the owner of the favored building. President Taddeo and the other officers all agreed on the location suggested, which they found most appropriate as the new home for the IAPH headquarters as the Association expands its activities for the enhanced benefits of our worldwide membership. They commented that they liked the new office, which will be located in a building on the waterfront, affording a view of Tokyo Bay and the Rainbow Bridge, a Tokyo's landmark. The new Head Office will occupy 233 square meters, namely approximately 30% more than the current office.

The new location for the Head Office is an intelligent building called the North Tower New Pier Takeshiba which is part of a new private-sector development resulting from an initiative of the Tokyo Metropolitan Government to revitalize the

waterfront area in the late 1980s. As seen in the pictures, the North Tower New Pier Takeshiba Building (24 storied) is the one situated on the right or the northern part of the area called "New Pier Takeshiba", one of the Tokyo's fashionable business and leisure centers, which can be accessed by Yurikamome, an automated shuttle service connecting Shimbashi station to a huge arena where world tennis championships and other major events taking place throughout the year.

The move will take place on 11 December so that the Head Office staff will be able to celebrate the New Year in the new building. The new address will be:

The Head Office of IAPH
5F, North Tower New Pier Takeshiba
1-11-1 Kaigan, Minato-ku, Tokyo
105-0022

The new telephone and fax numbers are yet to be known, while the e-mail addresses will remain unchanged.

E-mail: info@iaph.or.jp
E-mail (alternative): iaph@msn.com

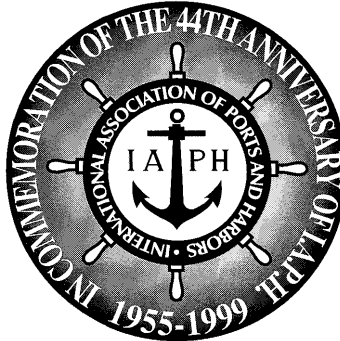
Please come and visit the new Head Office when you visit Japan after 13 December 1999.

IAPH Observes 44th Anniversary of Founding

NOVEMBER 7, 1999 marks the 44th anniversary of the foundation of IAPH. Over four decades have passed since our Association came into being at the inaugural conference at the Hollywood-Roosevelt Hotel in Los Angeles, California in November 1955.

Since then, twenty-one conferences have been held, the most recent one being in Kuala Lumpur, Malaysia in May this year. The next conference is scheduled for May 19-26, 2001 with the Montreal Port Authority acting as host under the theme: "2001, A Maritime Odyssey - 2001, Une odyssée maritime."

Forty-four years since its inception, IAPH has 337 members



(227 Regular and 110 Associate) from 82 countries/economies, without counting those who are currently with us in their capacities as Honorary or Lifetime Members.

The Association's Board of Directors, which was established with members from 14 countries - Brazil, Canada, China (Taiwan), Germany, Japan, Korea, Liberia, Mexico, Peru, Sweden, Thailand, USA, Venezuela and Vietnam - in 1955 currently numbers 86.

On the occasion of our 44th anniversary, it seems opportune to note some significant "firsts" in the history of our Association:

By Kimiko Takeda, IAPH Head Office

Since 1955

The first Conference

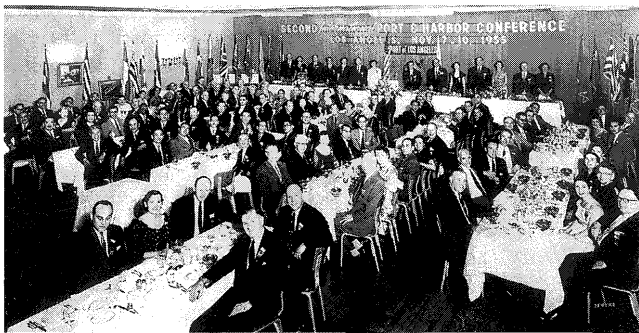
in Los Angeles, USA, 7-10 November 1955

The Conference Chair: Lloyd A. Menveg
President, Board of Harbor Commissioners
City of Los Angeles, USA

Number of Participants: 126 from 15 countries



Lloyd A. Menveg



The first President

Bennett J. Roberts (1955 - 1958)

Chairman
National Harbours Board, Ottawa
Canada



The first First Vice-President

John-Iwar Dahlin (1955-1958)

Port Director
Port of Helsingborg, Sweden

The first Second Vice-President

C.W. Chen (1955-1959)

Adviser
Ministry of Communications, Taipei, China

As of 1999

The 21st World Ports Conference

in Kuala Lumpur, Malaysia, 15-21 May 1999

The Conference Chair: Datin O.C. Phang
General Manager/Chief Executive,
Port Klang Authority, Malaysia

Number of Participants:

Delegates: 518 from 48 countries and economies

Accompanying persons: 174

Guests (at the Opening
Ceremony on 16 May):
800

Guests (at the Opening
of Prime Minister's
address on 17 May):
400



Datin O.C. Phang



The 23rd President

Dominic J. Taddeo

President & CEO
Montreal Port Authority
Canada



The current First Vice-President

Akio Someya

Executive Vice President
Nagoya Port Authority, Japan

The current Second Vice-President

Pieter Struijs

Vice Chairman/Executive Director, Shipping
Rotterdam Municipal Port Management, The Netherlands

The first Third Vice-President (post created in 1975)

W.H. Brotherson, C.B.E. (March - November 1975)

President

The Maritime Services Board of N.S.W.

Sydney, Australia

The first Conference Vice-President

(formerly called "Honorary Vice-President")

Fumio Kohmura (1979-1981)

Executive Vice President

Nagoya Port Authority, Japan

The first Secretary General

(formerly called Chief of the Central Secretariat)

Gaku Matsumoto (1955-1967)

A founding father of IAPH (former President of Japan Port and Harbor Association) who coined the **IAPH**

motto: World Peace Through World Trade - World Trade Through World Ports



The first Deputy Secretary General

(formerly called Acting Chief of the Central Secretariat)

Shizuo Kuroda (1956-1960)

ex-Director General, Ports & Harbours Bureau, MOT, Japan

The first office of the headquarters

(formerly called the Central Secretariat)

An office was opened in early January 1956

within the Bureau of Ports and Harbors, Tokyo Metropolitan Government at **Kaigan**, Shiba, Minato-ku, Tokyo

(with four staff members).

The first Chair of the Legal Counselors

Arthur W. Nordstrom (1956-1965)

Assistant City Attorney

Harbor Department, City of Los Angeles

USA



The first membership (as of November 1956)

Regular Members: 44

Associate Members: 30

Countries represented: 15

The annual membership dues (1956)

Regular Member: US\$250 per unit

Supporting Member: US\$50 per unit

The current Third Vice-President

H. Thomas Kornegay

Executive Director

Port of Houston

USA

The 5th Secretary General

Satoshi Inoue

(since 21 May 1999)

(former Director General, the 4th District Ports and Harbors Construction Bureau, MOT, Japan)



The current Deputy Secretary General

Rinnosuke Kondoh (since 1987)

Tokyo, Japan

The Head Office (from 13 December 1999)

(renamed the Head Office in 1967)

North Tower New Pier Takeshiba

Kaigan, Minato-ku, Tokyo

(with six staff members).

The chair of the Legal Counselors

Hugh H. Welsh (since 1997)

Deputy General Counsel

The Port Authority of New York & New Jersey

USA



The membership (as of September 1999)

Regular Members: 227

Associate Members: 110

Countries/Economies represented: 82

The annual membership dues (since 1995)

Regular: SDR 1,070 (US\$1,499) per unit

Associate: SDR900 – SDR140 per unit

(US\$1,261 – US\$196)

The first member who paid annual dues

On 9 February 1956, the Nagoya Port Authority remitted the amount of ¥ 360,000 as its IAPH dues. (Until then, Mr. Matsumoto, Chief of the Central Secretariat, had relied on bank loans through the generous support of **Hisato Ichimada**, the then **Governor of the Bank of Japan**, by putting up Mr. Matsumoto's house in Kamakura as collateral so as to meet the day-to-day expenses required in carrying out the headquarters' work. The bank loans were without exception repaid punctually and, with the bank's growing confidence in the Association, business was proceeding as planned by the end of 1956.)

The first budget (1956-1958)

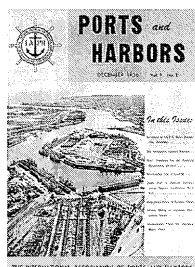
US\$50,635

(Exchange rate: US\$1 = ¥360)

The first edition of "Ports and Harbors"

Vol. I No. 1 of what was planned as a quarterly journal was issued in December 1956.

Front cover page: Port of Los Angeles



The budget for the term 1999-2000

US\$5,163,439

(Exchange rate: US\$1 = ¥105)

(as of 27 September 1999)

The November 1999 edition of "Ports and Harbors"

Vol. 44 No.9 to be published

late October (10 issues a year).

Front cover page: Port of Constantza

The first Exco members

(as appointed by the Board on 21 June 1959
at the 2nd IAPH Conference in Mexico)

Hsu Ren-shou, Keelung, China

Chujiro Haraguchi, Kobe, Japan

Edward Julius Wesley, Monrovia, Liberia

Howard W. Quinn, Callao, Peru

John P. Davis, Long Beach, USA

Francisco A. Medrano, Manila, Philippines



Photo shows U.S. Ambassador Douglas MacArthur II presenting the Honorary Membership Scroll to Prince Takamatsu, while Chief of the Central Secretariat Gaku Matsumoto, extreme left, and Mexican Ambassador Alfonso Castro Valle, extreme right, are looking at them.

The first Honorary Member

H.I.H. Prince Nobuhito Takamatsu, a brother of His Majesty Emperor Showa of Japan was elected as an Honorary Member at the 2nd Conference in Mexico in June 1959.

The ceremony for presentation of the Honorary Membership Certificate was held on July 11

1960 at a Tokyo restaurant. **Mr. Douglas MacArthur II**, (a nephew of General MacArthur), US Ambassador to Japan, presented the certificate to Prince Takamatsu on behalf of **Lloyd A. Menveg**, 3rd IAPH President (1959-1961).



Executive Committee Meeting in Honolulu, Hawaii, on May 19 and 20, 1960

The first Exco Meeting

in Honolulu, Hawaii on 19 May 1960

hosted by the State Board of Harbor Commissioners of Honolulu, Hawaii, USA

The first Conference symbol
for the 4th IAPH Conference
in London, 10-14 May 1965



President, Vice-Presidents and Exco Members (1999-2001)

(as elected on 21 May 1999 at the 21st Conference in Malaysia)

President: Dominic J. Taddeo, Montreal, Canada

First Vice-President: Akio Someya, Nagoya, Japan

Second Vice-President: Pieter Struijs, Rotterdam, The Netherlands

Third Vice-President: H. Thomas Kornegay, Houston, USA

Immediate Past President: J. Smagghe, French Ports Asso., France

Exco Members:

Aliou Diallo, Conakry, Guinea

Patrick J. Keenan, Cork, Ireland

S.E.M. Luhigo, Tanzania, Tanzania

G.C.G. van den Heuvel, Amsterdam, The Netherlands

David F. Bellefontaine, Halifax, Canada

Errol L. Bush, Cayman Islands, Cayman Islands

B. S. Groseclose, Jr., South Carolina State Ports Authority, USA

Larry A. Keller, Los Angeles, USA

Choi Lark-Jung, Pusan, Korea

Garth Cowie, Napier, New Zealand

Goon Kok Loon, PSA Corporation Ltd., Singapore

John Hayes, Sydney, Australia

Lu Haihu, Shanghai, China

O.C. Phang, Klang, Malaysia

Shieh Ming-Hui, Keelung, China

Sumardi, Indonesia Port Corporation III, Indonesia

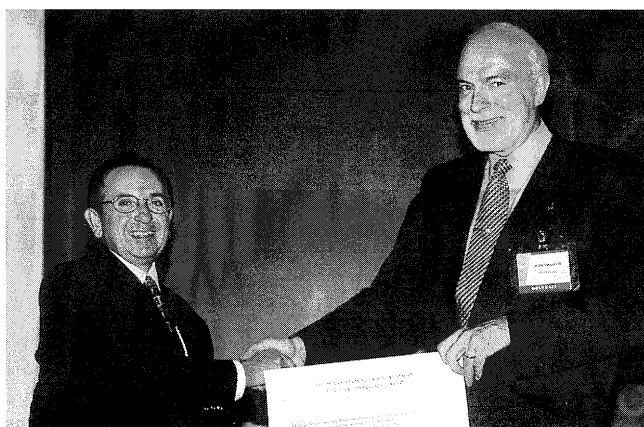
Notes: Out of 18 Exco members elected at the KL Conference in May 1999, **Malcolm F. Ravenscroft** of Associated British Ports and **Mihaita Emil Visoianu**, Constantza, had left their organizations by the end of September 1999, thus two vacancies on the Exco exist as of 1 October 1999.

The Honorary Members 1999

Jean Smagghe, the 22nd President of IAPH from France,

Hiroshi Kusaka, the 4th Secretary General of IAPH (1987-1999); and

Jean-Michel Moulod, Exco Member (1989-1999) from the Port of Abidjan, were elected.



The outgoing President Smagghe (right) receives an Honorary Membership Certificate from new President Taddeo at the Second Plenary Session of the KL Conference on 21 May 1999.

Exco meeting in Montreal

from 23-28 October 1999

hosted by the Montreal Port Authority
Canada

The logo

of the 21st IAPH World Ports Conference
in Kuala Lumpur, Malaysia, 15-21 May 1999



The first Consultative Status granted to IAPH

8 July 1966: IAPH was granted NGO (non-Governmental Organization) category B Consultative Status at the 1427th plenary meeting of the **United Nations Economic and Social Council (ECOSOC)**, after evaluation of the special work carried out by IAPH, in particular the activities of the IAPH Committee on International Port Development (currently called Human Resources Development Committee).

The first IAPH trainee

Autumn 1966: **Teruo Kawanishi**, an engineer of the **Port and Harbour Technical Research Institute of Japan's Ministry of Transport**, received some intensive on-the-job training at the Port of New York Authority (currently the Port Authority of New York & New Jersey) through the good office of **Austin J. Tobin (Executive Director, Port of New York Authority)**, who served as the first Chairman of the IAPH Committee on International Port Development (1965-1971).

The first IAPH observer at an IMCO Session

Sept. 1968: **Commander G.V. Parmiter, R. N., Chief River Manager, Port of London Authority**, represented IAPH at the 6th session of the Sub-Committee on Safety of Navigation, Maritime Safety Committee of IMCO (currently called IMO), held at the IMCO headquarters, London, 17- 20 September 1968.

The first IAPH Liaison Officer

with the IMCO (now IMO) (1974-1999)/
IAPH European Representative (1981-1999)
Alex J. Smith, former Executive Secretary, the British Ports Association, which seconded him under the agreement between IAPH and BPA (concluded at the 12th IAPH Conference in Nagoya in May 1981).



IAPH Liaison Officer with IMO/ IAPH European Representative

(since July 1999)
Peter C. van der Kluit (former Executive Secretary & Senior Policy Adviser, Rotterdam Municipal Port Management), whose office was created at MarineSafety Rotterdam (MSR) under the agreement between IAPH and the MSR in Rotterdam (concluded in November 1998).



The first recipient of the top prize in the IAPH essay contest:
Daphne Pinopoulos, Cyprus Ports Authority, at the 11th IAPH Conference held in Deauville, France, 12-19 May 1979

The first conference renamed the World Ports Conference

Starting with the 14th IAPH Conference (held in Hamburg, 4-10 May 1985), the biennial conference came to be called the **World Ports Conference** at the recommendation of **Jörg Rommerskirhen**, former Head, Office for Port, Shipping and Transport, **City of Hamburg**, Federal Republic of Germany, and IAPH Honorary Member (elected at the 16th World Ports Conference of IAPH held in Miami, Florida, USA, 22-28 April 1989).



Mrs. Pinopoulos being awarded by President Altwater 1st Prize for her paper on port improvement, at the 11th Conference in Deauville, France.

The first conference theme

for the 9th Conference in Singapore
8-15 March 1975
"Towards Greater International Port Cooperation"

The conference theme

for the 21st World Port Conference in Malaysia
15-21 May 1999
"Global Trade Through Port Cooperation"

The first conference theme song

for the 21st World Ports Conference,
15-21 May 1999

(by Prima Muzk Sah Bhd commissioned by the Port Klang Authority, the host of the 21st IAPH World Ports Conference held in May 1999 in Kuala Lumpur, Malaysia.)

IAPH '99 Theme Song

*There's sea of friendship sincerity and trust
A harbour of hopes and dreams
Where beacons burn all day and night
For IAPH Teams*

Chorus

*We are IAPH
Together we'll conquer new shores
The world is our port of call
As we open hearts and doors*

*Let's sing together one and all
We'll weather any storm at sea
United we stand, divided we fall
Towards the 21st Century*

The Royal Family Members/State Heads who have supported IAPH activities

May 1963: **John F. Kennedy, the 35th President of the USA** (20 January 1961- 22 November 1963), whose welcoming message was presented to the 3rd IAPH Conference in New Orleans through Congressman Hale Boggs, IAPH Honorary Member (1963-1972)

A message from John F. Kennedy

President of The United States of America

I have learned with much pleasure from Congressman Hale Boggs that the International Association of Ports and Harbors is holding its Third Triennial Conference in New Orleans, which is appropriately one of America's outstanding gateways for seaborne trade.

We welcome to our shores this group representing ports of the free world. Your efforts in the promotion of world trade make an important contribution to the improvement of living standards everywhere and to mankind's goal of world peace.

Best wishes for a successful gathering,

John F. Kennedy

Jan. 1956: **H.I.H. Prince Takamatsu** was a guest at the opening ceremony for the office of the Tokyo Secretariat held on 15 January 1956 at the Ueno Seiyoken restaurant, along with 250 guests, including Japanese government officials, representatives of the diplomatic and consul services of various countries, representatives of port and shipping industries and those of domestic and foreign press firms.

May 1965: **H.R.H. The Prince Philip, Duke of Edinburgh. K.G.,** Patron of the 4th IAPH Conference in London, 10-14 May 1965.

May 1965: A message from **Eisaku Sato, Japan's Prime Minister**, officially inviting IAPH to hold its 5th biennial Conference in Tokyo in 1967 was presented at the 4th Conference (London in 1964) by Dr. Hajime Sato, the then Director General, Ports and Harbours Bureau,

Ministry of Transport, Japan.

May 1967: **Their Majesties Emperor Hirohito and Empress Nagako** received in audience the officers and members of the Executive Committee and their wives at the Imperial Palace on the eve of the opening ceremony of the 5th IAPH Conference in Tokyo (8-13 May 1967) on 8 May 1967.

May 1967: **H.I.H. Prince Takamatsu** (a younger brother of Emperor Hirohito), Honorary Member of IAPH and the patron of the 5th IAPH Conference, declared the Conference open on 8 May 1967.

May 1981: **T.I.H. Prince and Princess Takamatsu** hosted a dinner attended by the IAPH Officers, Executive Committee members and the recipients of the IAPH Silver Jubilee commendations and their wives at the Nagoya Castle Hotel on the eve of the opening of the 12th IAPH Conference held in Nagoya to commemorate the Silver Jubilee of the establishment of IAPH, on 24 May 1981.

May 1981: **H.I.H. Prince Takamatsu** declared the 12th IAPH Conference open on 25 May 1981.

May 1991: **His Royal Majesty The King of Spain Juan Carlos I,** Honorary President of the 17th IAPH Conference (5-11 May 1991), **the first cruise Conference** held on board the "Eugenio Costa" which cruised from Barcelona to Valencia, calling at the Ports of Mahon, Palma de Mallorca and Ibiza in the Balearic Islands.

Aug. 1992: The IAPH journal featured the opening address delivered by **Prime Minister of Norway Gro Harlem Brundtland, Chairman of the World Commission on Environment and Development (UNCED)**, on the occasion of the reconvening of UNCED held in London on 22 April 1992.



Sep. 1992: The IAPH journal featured the keynote address by **H.R.H. the Prince of Wales** delivered at the UNCED convention held in London on 22 April 1992.

June 1995: **H.R.H. Prince of Wales** sent his welcoming message to the 21st IAPH Conference held in London from 31 May to 6 June 1995.

A Message from Premier Sato

It is my very great pleasure to learn that the Fifth Biennial Conference of the International Association of Ports and Harbors will be held in Tokyo in 1967.

On behalf of the people of Japan, I wish to extend our warmest welcome to you.

In Japan which is an island state, the improvement of ports has an unparalleled position of importance in the development of our national economy. In the light of this fact, the Japanese people have a very great interest in the activities of your Association.

We earnestly hope that your Association, which has celebrated the tenth anniversary of its establishment, will continue to prosper in the years to come.

We are looking forward to meeting you in Tokyo in 1967.

In closing, permit me to extend my personal wishes for the success of your Conference in London.

Eisaku Sato
Prime Minister of Japan



I am delighted to welcome you all to London and to the 20th World Ports Conference of the International Association of Ports and Harbors, especially as this is the first occasion on which a port has been invited to act as host for a second time.

Ports are an integral part of every maritime nation, providing the essential link between waterborne and land-based transportation. There can be few commodities the carriage of which does not involve sea transport, and therefore ports, in the movement from manufacturer to consumer.

Over the last two millennia London has been a leading maritime centre, frequently described as the Maritime Capital of the World. It is a position of which the United Kingdom is justly proud and I am delighted that London should have been chosen again to be the venue for this Conference.

As Britain's largest port, the Port of London is a major force and I know that the Port of London Authority plays a leading role in the ports industry both in the United Kingdom and in the rest of Europe. It is also an important participant in the International Association of Ports and Harbors.

I wish you all a very successful Conference and continued prosperity in your own ports throughout the world.

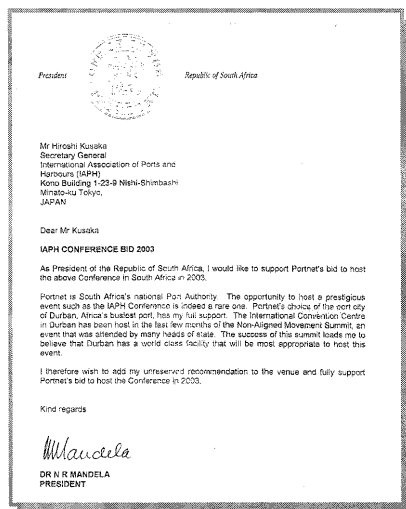
Maheu

May 1999: **Y.A.B. Dato' Seri Dr. Mahathir bin Mohamad, Prime Minister, Malaysia**, delivered the keynote address at the opening session of the 21st World Ports Conference held in Kuala Lumpur, Malaysia, on 17 May 1999.



Malaysia's Prime Minister Dr. Mahathir delivering the keynote address.

May 1999: **Dr. N.R. Mandela, the then President of South Africa**, sent the IAPH Head Office a letter in support of **Portnet's** bid to host the 23rd World Ports Conference in Durban in 2003.



The first father and son to serve IAPH

Chujiro Haraguchi (Mayor of Kobe), a founding father and the 7th President (1967-1969), and

Yoshiro Haraguchi (Executive Vice President, Nagoya Port Authority), an Exco member (1987-1993)



The first father and daughter to serve IAPH

Toru Akiyama, Secretary General Emeritus (since 1987), the 2nd Secretary General (1967-1973), the Chairman of the Organizing Committee for the 5th IAPH Conference, **the donor of the Akiyama Prize** (the top prize in the IAPH essay contest) and **the first President of the IAPH Foundation (1973-1987)**, and **Kazuko Tatsuta**, who served as a staff member of the IAPH Head Office (1968-1986), having assisted her father since 1952 in organizing **the preliminary conference held in Kobe, 9-11 October 1952**, three years prior to the first IAPH Conference in Los Angeles, 7-10 November 1995.



The Head Office staff and Secretary General Emeritus Akiyama (second from right), together with his daughter Mrs. Tatsuta (extreme right), and Dr. Peter Rimmer, are pictured against the backdrop of children's paintings displayed at a corner of the Trade Exhibition during the 18th IAPH World Ports Conference held in April 1993 in Sydney, Australia.

The first country which has produced six IAPH Presidents: USA:

- The 3rd: **Lloyd A. Menveg**, Los Angeles (June 1959 - June 1961)
- The 5th: **John P. Davis**, Long Beach (May 1963 - May 1965)
- The 12th: **George W. Altwater**, Houston (April 1977 - May 1979)
- The 15th: **Anthony J. Tozzoli**, New York (June 1983 - May 1985)
- The 18th: **James H. McJunkin**, Long Beach (April 1989 - May 1991)
- The 20th: **Carmen Lunetta**, Miami (April 1993 - June 1995)

The countries which have produced two IAPH Presidents: Australia:

- The 8th: **Victor G. Swanson**, Melbourne (March 1969 - June 1971)
- The 14th: **Arthur Stanley Mayne**, Melbourne (May 1981 - June 1983)

Canada:

- The 1st: **Bennett J. Roberts** (November 1955 - February 1958)
- The 23rd: **Dominic J. Taddeo** (May 1999 - May 2001)

France:

- The 13th: **Paul Bastard**, all non-autonomous French ports (Paris) (May 1979 - May 1981)
- The 22nd: **Jean Smagghe**, French Ports Association (Paris) (June 1997 - May 1999)

Singapore:

- The 11th: **Howe Yoon Chong**, Singapore (March 1975 - April 1977)
- The 17th: **Wong Hung Khim**, Singapore (May 1987 - April 1989)

UK:

- The 6th: **Rt. Hon. Viscount Simon**, London (May 1965 - May 1967)
- The 19th: **John Mather**, Clydeport (Glasgow) (May 1991 - April 1993)

Taiwan struck by huge earthquake

THE early hours of Tuesday, 21 September 1999, a huge earthquake hit the middle part of Taiwan, causing numerous casualties and severe damage to property. Communication lines were severed in the northern area, including Taipei and Keelung. On the same day, however, the IAPH Head Office succeeded in communicating its sympathy and encouragement to our members in Taiwan via Mr. Oliver F.L. Yu, Director, Kaohsiung Harbor Bureau, an IAPH Director representing China. In his letter of 22 September 1999 (which is reproduced below), Mr. Yu, thanking us for our sympathy, informed us that port operations were unaffected at the Ports of Kaohsiung and Keelung, although some of the bulk terminals at Taichung Port had been affected. He assured us that, upon further evolution of the situation, he would give us an updated report.

The letter from Mr. Yu, Director, Kaohsiung Harbor Bureau and the pictures of the Port of Taichung taken immediately after the earthquake, follow:



Kaohsiung Harbor Bureau

No. 62 Lin Hai 2nd Road Kaohsiung, Taiwan
Re public of China
Tel: 886-7-561-2311 Fax: 886-7-561-1694
E-mail: admin@mail.khb.gov.tw

September 22, 1999

Dr. Satoshi Inoue, Secretary General, IAPH
Kono Building, 1-23-9 Nishi-Shimbashi
Minato-ku, Tokyo 105-0003, Japan

Dear Dr. Inoue:

Thank you very much for your kind letter and concern about damages of the earthquake which was occurred on September 21, 1999.

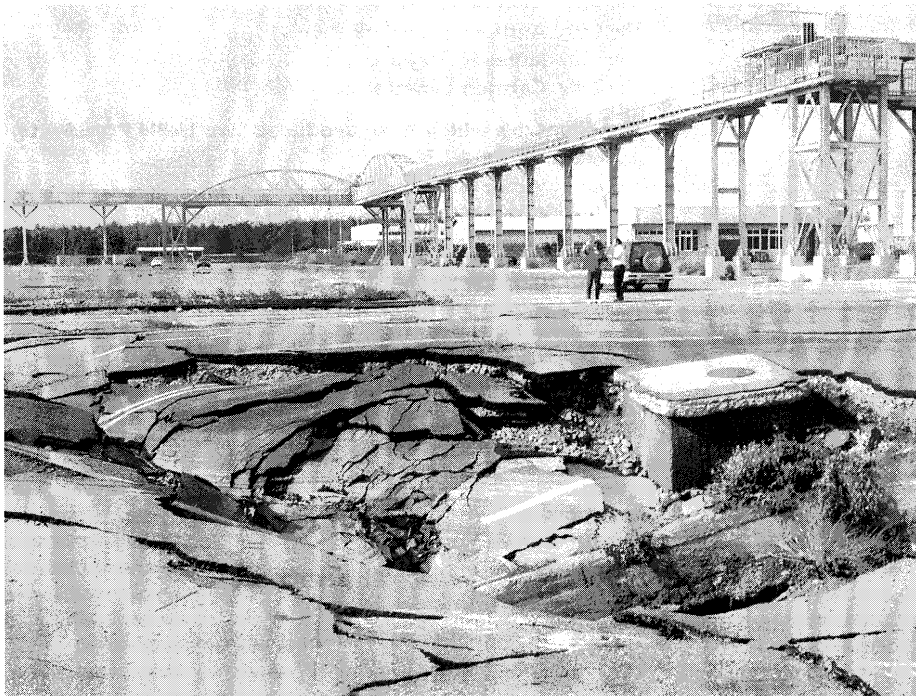
To have such earthquake almost the heaviest one over the past hundred years, it was indeed a real shock to everybody here. The death and injured people have been over 1700/4000 people. We have started and spread the rescue work all country.

A part from the people death/injured, the communication system and power facilities have become the urgent recovery job also. It was badly damaged in central Taiwan. Especially, Pu-Li area in central Taiwan is the hardest hit where has caused countless damage and loss. Fortunately, there is little damage in the south of Taiwan but because of power failure the communication is not smooth as before. For the Ports, the Port of Kaohsiung's operations go well as usual, the Port of Keelung same while the Port of Taichung got some damages of bulk and breakbulk terminals but not so serious. We will provide you more information about the earthquake if there is any particular situation you would like to know.

Appreciate you again for your kind sympathy and concern.

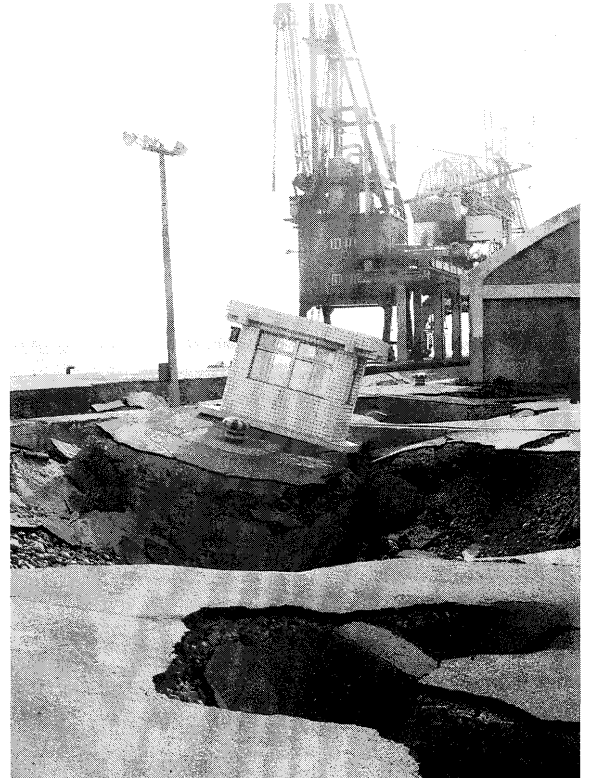
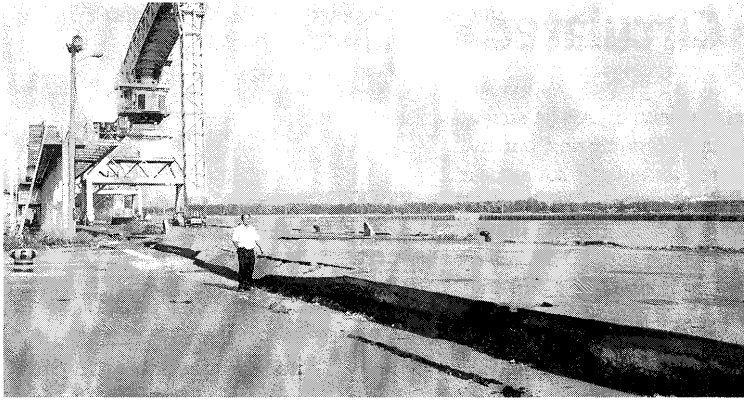
Sincerely yours,

Oliver F. L. Yu
Director, Kaohsiung Harbor Bureau



The Port of Taichung, except for berth No. 1 to No. 4, the rest of terminals were recovered to provide services after September 24, 1999. The major access of port and cargo handling systems were all back to normal operations. Berth No. 1 was equipped with 90,000 ton capacity grain silo, while No. 3 installed 60,000 ton silo. It could take up to six months to repair the damage.

(quoted from the letter dated 8 October 1999 received from Mr. Kuo-Quan Chen, Managing Director, The Association of Chinese Ports and Harbors, Taiwan)



Pictures by courtesy of the Kaohsiung Harbor Bureau

New Appointment: *Perrot Succeeds Ravenscroft as Chairman of Communication and Networking Committee*

AT the 21st IAPH World Ports Conference held in Kuala Lumpur in May 1999, Mr. Malcolm Ravenscroft, Deputy Managing Director of Associated British Ports (ABP), was appointed as Chairman of the Communication and Networking Committee, one of the three committees in the Sustainment & Growth Group, and Mr. José Perrot, Assistant Manager, Port of Le Havre, was appointed as Vice-Chair. The Tokyo Head Office was appointed has received a letter from the ABP that Mr. Malcolm Ravenscroft left his employment on 8th September 1999 and being succeeded by Mr. Avril Winson as Deputy Managing Director of the ABP.



José Perrot

Secretary General Inoue consulted with President Taddeo and the Vice-Presidents Dr. Someya, Messrs. Struijs and Kornegay on filling the post of

chairman of this important committee. On 28 September 1999, President Taddeo officially appointed Mr. José Perrot, after having received his willingness to serve as Chair of the Committee.

Mr. Perrot is well known among IAPH activists through the important role he has played in support of the Committee activities and through his presence at various IAPH conferences and committee meetings which have taken place in various cities throughout the world. We are confident that the Committee will continue to work for the enhanced benefit of all members of IAPH and our friends in the world ports community. For those who have not yet met Mr. Perrot, we introduce his photograph and brief record of his career at the Port of Le Havre and the role he has played in IAPH theater.

José Perrot, 51, Officer in the Merchant Navy before joining the Port of Le Havre. Presently Manager of the External Affairs

Department at the Port of Le Havre Authority. Since 1988 he has been involved in IAPH issues. He started as Assistant to Mr. Jean Smagghe, Chairman of the Committee on Port Safety, Environment and Construction, known as COPSEC, and has been involved in the work of different Technical Committees of IAPH. During the last two years he has worked closely with President Smagghe. At the Kuala Lumpur Conference he was appointed Vice Chairman of the Committee on Communication and Networking.

'Port Health and Safety News' Distributed to IAPH Members

THE fourth edition of *Port Health and Safety News*, prepared by PSO, London, UK, has been published and is to be distributed to all members of IAPH relevant organizations, through its inclusion in the November issue of *Ports and Harbors* in early November.

IAPH's Promotional Flyer Circulated

Corporate Design and Production
Tel: 44-20-7423-2658
Fax: 44-207488-4796

THE Tokyo Secretariat has recently completed a four-page color flyer for use in the membership campaign. By the end of September, a first lot of 1,000 copies had been sent to Datin O.C. Phang, General Manager/CEO of the Klang Port Authority, an IAPH Exco member and chairman of the IAPH Membership Committee, for distribution among participants at INMEX'99, India's first international maritime exhibition and conference, which was scheduled for 9-10 October in Goa, where she was representing IAPH.

The flyer offers a glimpse of IAPH today, introducing a brief background of

the Association, a sketch of IAPH's activities, including the work carried out by various committees and of the hot issues faced by IAPH members such as the Y2K issue, *Ports and Harbors*, the journal of IAPH, information on past and planned IAPH World Ports Conferences and the current addresses of the Tokyo Head Office and the European Representative Office in Rotterdam. A copy of the flyer, containing a sheet of portrait photographs of the officers and Exco members (as appointed or elected at the KL Conference in May 1999), was airmailed to IAPH members from Tokyo early in October for their reference.

Y2K Practical Guidelines Sent to IAPH Members

THE IAPH Head Office has recently received a number of copies of the Practical Guideline for Year 2000 Contingency Planning and its electronic/internet version (together called the "Guidelines") produced by Lloyd's Register Marine Division, Lloyd's Register House, London, UK, through the kind arrangement of the Y2K Working Group in London.

The *Guidelines* (34 pages and a compact disc) were to be airmailed to all members of IAPH from the Tokyo Head Office early in October. In his covering letter dated 4 October 1999, Secretary General Inoue says, "It is our sincere hope that this will give you an added insight to help you cope with the potential problems associated with Y2K". The contents of the *Guidelines* are:

- 1 Introduction
- 2 Contingency Planning for Year 2000 Date Changes
 - 2.1 What is the problem?
 - 2.2 What is a Year 2000 Contingency Plan?
 - 2.3 I already have general Contingency Plans in place, won't they do?
 - 2.4 Why will I need Contingency Plans and part of my Year 2000 Programme?
 - 2.5 What else is special about the Year 2000 Date Changes?
 - 2.6 When will I need my plans in place?
 - 2.7 Will I need a plan for every piece

of equipment that I have identified?

- 2.8 Can I reduce my risk?
- 2.9 Will I need plans at Head Office as well as on my ships?
3. Preparing Year 2000 Contingency Plans for Ship
 - 3.1 Step One - Define Impacts
 - 3.2 Step Two - Identifying Alternative Methods of Working
 - 3.3 Step Three - Implementing the Alternative Methods of Working
 - 3.4 Step Four - Identifying the Resource Requirements
 - 3.5 Step Five - Documenting Your Year 2000 Contingency Plans
 - 3.6 Step Six - Consolidating Resource Requirements
 - 3.7 Step Seven - Gathering Supporting Information
 - 3.8 Step Eight - Prepare a Pre- and Post Date Change Timetable
- 4 Preparing at Head Office
 - 4.1 Guidance for Ships
 - 4.2 Emergency Response
 - 4.3 Notification to Interested Parties
- 5 Legal Implications
- 6 Conclusion

For more information, please contact:
Control Engineering Marine Division
Lloyd's Register House, 29 Wellesley Road, Croydon CRO 2AJ. UK
Tel: 44-20-8681-4781
Fax: 44-20 8681-4870
Web site: www.lr.org

To order further copies of this publication, please contact:

USCG Calls for Exercise Partners

AT the request of the US Coast Guard, a meeting with IAPH and other organisations was held on 17 September to brief the industry on the USCG's current Year 2000 activities.

The USCG has been very active in promoting awareness of the Y2K problem and, as you may have read in the maritime press, has arranged a series of Y2K exercises in US ports. The exercises are intended to both gauge the preparedness of visiting ships and to test the contingency plans in the selected port areas.

The USCG is hoping to work together with other administrations and industry organisations to encourage further exercises in major port areas in other countries, and is looking for ports willing to volunteer to participate in such exercises. Those ports which have participated in the drills to date, apparently received some very positive publicity, without disruption to the activities in the port.

The Coast Guard recognises that it is quite unrealistic to ask any port to commit itself in this regard. However, participation in such an exercise could provide a useful "dry run" of the ports own Y2K contingency plans, and member ports may like to circulate this request to the members of their port community.

Ports or companies wishing to volunteer are invited and encouraged to contact the Y2K staff of the USCG to:

U.S. Coast Guard Headquarters
Y2K Staff
Attn. Commander D. Roundy
2100 Second St. S.W.
Washington, DC 20593
Fax: (202) 267-4453
Phone: (202) 267-1275

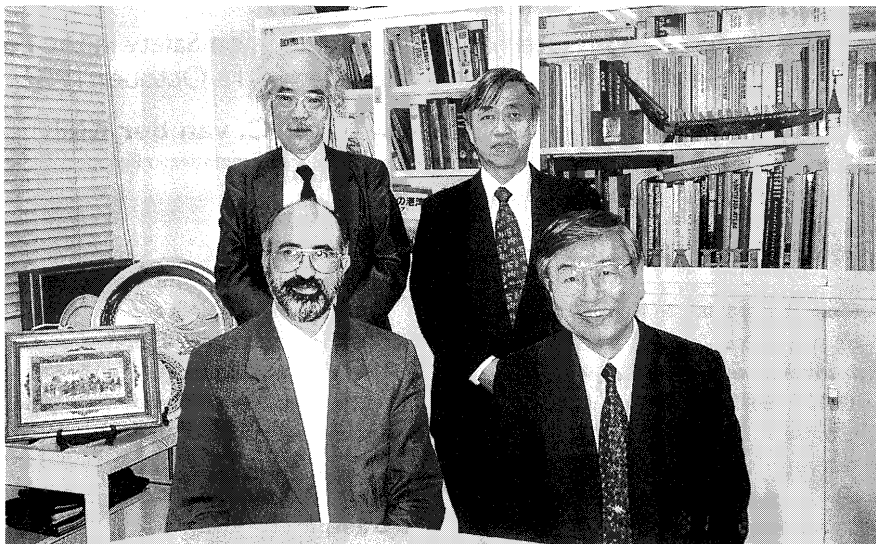
(Notes by the Head Office: The above message was transmitted to this office on October 12, 1999, by Mr. Jan Gardeitchik, Senior Policy Advisor, Port of Rotterdam, on behalf of Mr. Pieter Struijs as the result of the recent communication exchanged between Commander D. Roundy of the USCG and Mr. Pieter Struijs.)

Visitors

ON 22 September Mr. S.M. R. Masoumi, MSc. Port & Ship ADM, Member of the Board of Directors and Deputy Managing Director Planning and Projects, Ports & Shipping Organization (P.S.O.), Iran, accompanied by Mr. Tomoo Amano, Deputy Director of Planning Dept., the Overseas Coastal Area Development Institute of Japan (OCDI), visited the IAPH Head Office, where they were welcomed by Secretary General Inoue and Deputy Secretary General Kondoh.

They engaged in an exchange of information concerning recent developments at Iranian ports and the issues faced by IAPH ports at large. Mr. Masoumi was

in Japan on business and was reportedly visiting various institutes, including the OCIDI in Tokyo.



(Seated from left) Mr. Masoumi and Dr. Inoue; (standing from left) Mr. Kondoh and Mr. Amano

'WORLD DREDGING Mining & Construction'

THE IAPH Head Office has recently been referred to the above journal by the Dredging Task Force chair, who considered that the monthly journal would be a useful source of information on the dredging matters. If any readers are interested in the journal, copies will be available by contacting:

Head Office
World Dredging
P. O. Box 17479, Irvine, CA 92623-7479, USA
Tel: (949)553-0836
Fax: (949) 863-9261
E-mail: wdmc@ix.netcome.com
Homepage:
www2.netcom.com/~wdmc/WDMC.html

'Maritime Events Quarterly (MEQ)' listing of maritime events

If you wish to access the *Maritime Events Quarterly (MEQ)*, please contact:

Landscape Maritime Associates Limited.

33 Hengrave Road, Forest Hill,
London SE23 3NW, UK
Tel: 44-181-291-4545
Fax: 44-181-291-3113
Email:
enquiries@LandscapeMaritime.com
<http://www.LandscapeMaritime.com>

Membership Notes:

New Members

Associate Members

Ironimpex-Ukraine [Class A-1-3] (Ukraine)

Address: 2 Ekaterininskaya St., 270026 Odessa
Mailing Addressee: Mr. Ruslan A. Radzikhovsky, President
Tel: 380-482-22-44-12
Fax: 380-482-22-70-30, 51-75-08
E-mail: ironimpex@farlep.net

Lambert Fenchurch International Group Limited [Class A-2-1] (U.K.)

Address: Friary Court, Crutched Friars, London EC3N 2NP
Mailing Addressee: Mr. Nigel A. Brunning, Executive Director-Marine Group
Tel: 0171-560-3000
Fax: 0171-560-3620

Changes (the changes involved are underlined)

Nanjin Port Authority [Regular] (China)

Mailing Addressee: Mr. Sun Zijian, Port Director
Tel: 86-25-8802803
Fax: 86-25-8823898



Maritime Ports Administration Constantza S.A. [Regular] (Romania)

Mailing Addressee: Capt. Laurentiu Mironescu, General Manager/
President of Board of Administration



"Globalisation, Intermodalism and their Consequences for Safety and Environmental Protection"

5th International Conference on Safety in the Port Environment
Bremen, 11-13 October 1999

by **Peter C. van der Kluit**
IAPH Representative in Europe

Ladies and gentlemen,

First of all I wish to thank the organisers of this conference for the invitation to address this audience on behalf of IAPH, the International Association of Ports and Harbors. My name is Peter van der Kluit and until the first of January this year I was employed by the Rotterdam Municipal Port Management as senior policy advisor and executive secretary of the Directorate Shipping. I have been active in the IAPH organisation for the best part of twenty years. During the last years as Chairman of the Committees on Port Safety and Environment and Marine Operations.

IAPH, as a world ports' organisation, sometimes affectionately referred to as the United Ports of the World, is a fascinating organisation, which has consultative status with, for example, the International Maritime Organisation of the United Nations. On behalf of IAPH I have attended numerous IMO meetings representing the interests of the ports.

As I already mentioned, I left the port of Rotterdam organisation at the beginning of this year. Not because I disliked the work I was doing for the port of Rotterdam. No, I wanted to be able to fully concentrate on the work for IAPH. I have officially succeeded Mr Alex Smith as the IAPH Representative in Europe and Liaison Officer with IMO, on the first of July this year. A job such as this obviously requires an independent position and this was the reason for leaving the employment of the port of Rotterdam.

Now to the theme of my presentation: "Globalisation, Intermodalism and their Consequences for Safety and Environmental Protection".

In that context I would like to use this opportunity to address the following issues:

1. Trends and developments related to transportation
2. Trends and developments related to seagoing ships
3. The possible consequences (and how to deal with them)

Trends and developments related to transportation

The world has - in principle - become one single market. Modern technology has made it possible that production is concentrated in one part of the world while the consumers are located in another part.

This fact and the general growth of the world economy leads to an increase in international trade. This growth in international trade results in cheaper products for the consumer and in growing goods flows. It also leads to concentration of these goods flows, an increase in the scale of operations (formation of alliances of container liners), larger ships and shorter turnaround times.

These trends naturally have their effects on the transport and logistics sector: on cargo volumes, on the number of destinations, on sailing frequency, on the distances covered, on stock control, transport times and order times. Generally speaking, globalisation of transport and logistics leads to more cooperation, the formation of clusters and concentrations of power.

Producers either want to keep control of the complete logistic network or they want to concentrate on their core business.

Logistic operations are then farmed out to firms which can provide door-to-door services. This leads to a concentration of logistic operations in a limited number of places, from where a vast hinterland is served. This also means restrictions on the number of ports of call. As a result of these devel-



opments, container lines are cooperating and have set up large, powerful alliances.

Efficiency and cost reduction are key words in this respect. High investments are involved and the associated financial risks need to be mitigated as much as possible. Consequently there is demand for high quality services in and outside the port area. Logistic chains are the result in which the individual links are highly dependent upon each other. Intermodality is one of the answers to the growing demand for speed and reliability. In practice this means that transport units are loaded at the inland starting point of the logistic chain and travel as a unit to their final destination via various modes of transport. This represents a completely different situation in the past. Then cargo was transported from the place of manufacture to a port where it was loaded on board a ship.

Where ports are concerned, some specific trends can be distinguished.

The times in which a port management could quietly sit down and wait for the ships to arrive, these times are long gone. Ports are no longer only places where cargo is transferred from one mode of transport to another. They are now considered as links in logistic chains. To earn a place as link in a logistic chain they have to offer the services that the 'director' of this chain requires. As such, ports compete with each other on the basis of the amount and quality of services they can offer, services in the field of logistics, distribution and industry. Competitive does not only mean low cost, it also means high quality, reliability.

In this competitive struggle, apart from the quality level of physical facili-

ties or services such as accessibility, tug boat services etcetera, also labour costs, availability of properly trained labour, the price of land, the image of the region and the living and social climate are elements in this competition.

Furthermore, due to the economies of scale, ships are becoming larger and larger. Major container companies have ships on order or already in operation with a capacity in excess of 5000 TEU. Ships that sail a very tight schedule between North America, Asia and Europe.

Effectiveness of operation require these ships to only call on a few, or even one, port per continent. These Mainports like Rotterdam must be able to offer this new generation of ships the facilities they need: first of all with regard to draught.

In Europe, only a few ports are able to accommodate these ships. Competition between these ports to get and keep these large ship operators as customer is fierce.

Important element in this competitive struggle is the quality and variety of the hinterland connections. It must be possible to transport the cargo efficiently to the final destinations in the hinterland via all modes of transport. Not only by road, train and inland shipping, but also by short sea and feeder transport.

Due to the trend towards concentration, ports will be judged more than ever on the quality of their hinterland connections. Quality in this context means reliable, safe and with minimal risks for environmental incidents.

State-of-the-art terminal facilities including logistic information systems are required to safely and efficiently load and unload these giant ships with their huge quantities of containers.

Terminal operators must invest vast amounts of money in these facilities.

As said, ports have to offer services that satisfy the needs of the logistic chain operator at a competitive price. This has a bearing on safety aspects and on the required levels of education and training of the personnel involved. These aspects should not be looked upon in a ports' context, but in the much wider context of the logistic chain as a whole. This obviously not only applies to the port, but also to service providers at other places in the

chain. The interdependency of the individual links is thus also true where it concerns safety.

The intermodal transportation of dangerous goods may serve as an example to highlight this. I will come to that later.

Trends and developments related to seagoing ships

Not only the needs of the chain operator are determining factors. A little earlier I mentioned the trend that containerships are becoming bigger and bigger. But there is more. Seagoing ships have to comply with a growing number strict international regulations regarding safety and environmental, I only have to mention the ISM Code and the International Code for Certification and Watch keeping, one may expect that ship operators wish to be sure that their expensive and high quality ships meet with equally high quality facilities in ports. This will not only regard the physical facilities in the port, such as tug boats, quays, loading and unloading equipment, but also the port personnel which is relevant for a ship's stay in port.

If that is not the case will be clear that this mismatch can jeopardise the safety. Just compare it with bringing a Rolls Royce to a non specialised garage for servicing. Would you expect that to be a success?

Another worrying trend can be distinguished. Shipowners used to have experts on dangerous goods in every port of call. Today, this expertise is centralised at one location, that need not even be in a port. It will be clear that this not only means a larger physical distance between expertise and actual activities, but inevitably the loss of the port specific knowledge that used to be available.

This means that the quality of the hinterland in terms of expertise on dangerous goods, but also on stowage, documentation etc. has become more and more important.

Consequences

We have seen that the role of ports has dramatically changed as a result of globalisation and the inherent necessity for intermodal transport, intermodality. From independent

cargo transfer locations ports have become links in logistic chains. That implies that safety and environmental protection requirements are dictated not only by local situations but also by the logistic chain as a whole. Globalisation thus requires ports to look at the characteristics of this logistic chain when assessing safety and environmental aspects. The same is true for service providers in and outside the port.

Let us now look at the possible consequences. First those of intermodal transport. As said earlier, this means that cargo which is to be shipped by sea is stowed in transport units at locations which are remote, sometimes hundreds of kilometres away, from the port of departure. For example a container for the United States may be loaded in Vienna and sent by truck, rail waggon or inland barge to Rotterdam to be loaded on a seagoing vessel.

It is essential that shore based personnel, even far away inland, who are involved in these activities are sufficiently aware of the (safety) requirements on board sea going ships. As an example I mention the intermodal transportation of dangerous goods for which the IMDG Code is applicable.

This may lead to situations that although the Captain of the ship is responsible for compliance with the IMDG Code, he has no real influence on the condition in which dangerous cargo arrives on board. The safety on board his ships may be endangered if previous links in the chain have insufficiently understood relevant sections of the IMDG Code.

It is therefore felt that guidance should be developed for those shore based functions that have a relation with the safe transport by sea of dangerous goods. This is not revolutionary. Already in the in 1995 published IMO "Recommendations on the Safe Transport of Dangerous Cargoes and Related Activities in Port Areas" one can read the following paragraph (on page 94 to be exact), and I quote:

"Although designed primarily for mariners, the provisions of the IMDG Code affect industries, storage, warehousing, handling and transport services from manufacturers to consignees, and all should be guided by its provisions on classification, terminolo-

gy, identification, packing, marking labelling, and placarding and documentation of dangerous cargoes for transport by sea" unquote.

The chapter on training is even more specific, and I quote again:

"Every person engaged in the transport or handling of dangerous cargoes should receive training on the safe transport and handling of dangerous cargoes, commensurate with his responsibilities."

These quotes, important as they are, gain even more weight in the light of the consequences of shipowners' policy to centralise the expertise on dangerous goods in one location that I mentioned earlier.

An IMO Working Group is presently involved in identifying relevant shore based functions as well as the related sections of the IMDG Code that should be considered as basis for establishing function specific education and training requirements. IAPH and other relevant organisations are involved in these activities.

One may argue that IMO is overstepping its authority by developing guidance for education and training levels for activities which are carried out on land, sometimes far away from the sea. Yet, looking at this from a marine safety perspective, there is a case for an integrated approach. Intermodal transport is an integrated operation, where activities at the beginning of the chain have an influence on the safety of the other elements of the chain, in particular the sea leg. Would it therefore not be appropriate to take into account the requirements of the sea journey throughout the transportation process and especially at the first stages? In that context is it not logical that the Organisation that is responsible for developing the regulations for sea transport of dangerous cargoes provides advice for the transportation to and from the hinterland?

The described developments and trends underline the importance of the existence of the IMO Working Group on the Ship/Shore Interface, SPI in short. This is the only body within IMO that looks beyond the railing of the ship. In view of its present activities based on the described integrated approach, one could even argue that

the name of it should be altered into Ship/Hinterland Interface Working Group. Any way, SPI as it has already addressed a variety of interface problems not only in the port but also further into the hinterland and tries to develop guidance to overcome these.

I also mentioned the ship itself asking for services of a quality level commensurate with that of its equipment and crew. Like the example of the Roll Royce in the non qualified garage, if there is no proper match between ship and port, safety and environmental risks increase.

This issue is presently on the agenda of the IAPH Committee on Port Safety, Environment and Marine Operations. The Committee is trying to identify relevant shore personnel and draft education and training requirements, based on the requirements of the ships.

Let me briefly summarise. It is clear that globalisation and intermodalism have the potential to affect the safety and the environment in a negative way. An integrated approach is needed whereby safety and environmental needs are analysed in the context of the complete logistic chain and not by looking at individual links.

The role of the hinterland becomes increasingly important.

The increased quality of ships may result in additional requirements regarding port services.

All this underlines the necessity of tailor made function, specific education and training programmes.

I have described some of the activities in this field, but apart from those there are many more in which many organisations are involved. I mention a few.

The VTS Committee of IALA, the International Association of Light House Authorities, which combines the VTS expertise of IALA itself as well as many other organisations such as IAPH has produced an authoritative document on Vessel Traffic Services and submitted that to the Marine Safety Committee of IMO, MSC: "Standards for Training and Certification of VTS Personnel", MSC70/20/11

Comments so far indicate that the contents of this paper are in line with ports' views.

The Committee has also developed

a series of model courses for VTS operators. All these activities are aimed at enhancing safety taking into account the latest developments.

The International Marine Pilots Association, IMPA has also submitted an important document to MSC: "Training and Certification of Maritime Pilots", MSC 69/20/1

Experts from various international organisations, including IAPH have contributed to this document.

And of course there are the activities of ICHCA which produces valuable guidance in the field of cargo handling and occupational safety and health.

So, one might conclude that everything is under control? Unfortunately not quite.

Establishing education and training requirements is one thing, the availability of people to educate and train is another.

It is generally accepted that for certain jobs in a port it is an advantage to have a nautical background as master or first mate.

In that context, the previous International Conference on Safety in the Port Environment concluded that there is a foreseeable shortfall of suitably trained port marine personnel. Ex-mariners are hard to get. That raises the question how to deal with that apparent problem.

Discussions in IMO's SPI and FAL 26 led to the initiative that international non-governmental organisations such as IAPH, IMPA and IHMA should address the development of internationally agreed minimum standards for education and training of port marine personnel which is lacking practical nautical experience. In the same meeting it was also noted that IMO was already involved in the development of standards for pilots and VTS operators, so it was not necessary to address these functions.

After elaborate discussions it was decided that as a first step ILO, IAPH, IMPA and IHMA would be invited to develop a list of those areas in which internationally agreed minimum standards for education and training of port marine personnel are needed.

In other words, identify the functions in a port for which practical nautical experience is necessary. At the meeting of the IAPH Committee on

Port Safety, Environment and Marine Operations in London on 3 December 1998 it was decided that IAPH, ICHCA, IMPA and IHMA would have a first go at the subject. A first meeting took place on 22 February at the offices of IMO. The issue was also discussed at the IAPH Conference in Kuala Lumpur in May this year and a joint discussion document has been submitted for the meeting of SPI and FAL last September.

At the time of writing this presentation (July 1999), the results of these activities are not yet available. Progress will be reported at the Bremen Conference.

Ladies and gentlemen,

I hope that I have succeeded in making clear that the changes in international shipping, both in a logistic sense as well as in hardware, the ships, have considerable consequences for the approach to matters of safety and environmental care. I hope that I also have made it clear that an integrated approach is needed and that education and training for port and other shore based personnel provides the answer.

I am personally convinced that "integrated" is the operative word. This not only relates to the fact that one has to look at the complete logistic chain and not at individual links in isolation. It also means the integrated efforts of all the parties involved.

I am pleased that I was in a position today to tell you that this cooperation is a fact.

In closing, one last observation. In the highly competitive environment we live in, be it as ports or providers of logistic services, the quality of our performance may just give us that competitive edge that is required to secure the business or attract a new customer. High quality performance is impossible without suitably educated and trained personnel. Consequently, it is not only in the interest of safety and the environment, it is also in our own commercial interest that we continue to pay attention to this matter.

Thank you for your attention.

IPD Fund: Status Report

56% of target yet to be raised

THE contributions from members to the Special Port Technical Assistance Fund ("the IPD Fund") as of 30 September 1999 are listed in the box below. The amount so far received in contributions in the 27 months from the start of the campaign totaled US\$30,941, a little over 45% of the targeted amount of US\$70,000.

Over the years, IAPH has been able to sponsor 114 selected people from various IAPH member ports/organizations in developing countries to receive training and education at various institutions under the Bursary Scheme. In order to sustain our efforts to aid our friends from developing ports, all members' continued support in helping us to achieve the targeted amount of money, which is to be used for training 20 people in the two-year term, is earnestly requested.

List of Contributors to the Special Port Development Technical Assistance Fund

(in the 5th Fund-raising campaign, started July 1997)

(As of 30 September 1999 in order of receipt at the Tokyo Head Office)

ORGANIZATION	COUNTRY	(US\$)
Georgia Ports Authority	USA	1,500
Bintulu Port SDN BHD	Malaysia	1,000
Ports of Auckland Ltd.	New Zealand	500
Fremantle Port Authority	Australia	250
Port Services Corporation	Oman	985
Associated British Ports	UK	1,000
Nanaimo Harbour Commission	Canada	250
Japan Cargo Handling Mechanization Association	Japan	240
South Carolina State Ports Authority	USA	750
Mauritius Ports Authority	Mauritius	1,000
Overseas Coastal Area Development Institute of Japan	Japan	1,000
Port of Rotterdam	Netherlands	1,000
Port Authority of the Cayman Islands	Cayman Islands	500
Kuwait Oil Company (KSC)	Kuwait	750
Port of Copenhagen	Denmark	1,000
Saeki Kensetsu Kogyo Co. Ltd.	Japan	235
Marine Department, Hong Kong	China	500
Port of Montreal	Canada	1,000
Port Authority of Thailand	Thailand	100
Tanzania Harbours Authority	Tanzania	1,000
Port of Kobe	Japan	3,000
Japan Academic Society for Port Affairs	Japan	237
Sydney Ports Corporation	Australia	500
World Cargo News	UK	100
Nagoya Port Authority	Japan	3,000
Administracao do Porto de Sines	Portugal	500
Maldives Ports Authority	Maldives	100
Port Autonome du Havre	France	1,000
Indonesia Port Corporation II	Indonesia	500
Fraser Port Authority	Canada	250
Kobe Port Terminal Corporation	Japan	500
Canaveral Port Authority	USA	500
Sabah Ports Authority	Malaysia	261
Irish Ports Association	Ireland	500
Portnet	South Africa	1,000
Port of Amsterdam	Netherlands	500
Port Authority of New York & New Jersey	USA	1,000
Port of Kawasaki	Japan	983
Port of Houston Authority	USA	1,500
Empresa Nacional de Administracao dos Ports	Cape Verde	250
Dr. Susumu Maeda	Japan	100
World Cargo News	UK	100

Total in US\$: 30,941

OPEN FORUM

An Assessment of The U.S. Marine Transportation System

A Report to Congress
September 1999

U.S. Department of Transportation

FOREWORD

As the world's leading maritime and trading nation, the United States relies on an effective and efficient marine transportation system to further enhance our global leadership. In a National Strategy for a New Century, President Clinton calls for our renewed commitment to promote prosperity, enhance American competitiveness, and invest in a world-class transportation infrastructure for the 21st century. We can meet his vision by working vigilantly together – as one team for America.

Many of you now share responsibility for America's marine transportation system. As you know, this Nation was built on its waterways and ports. So we must make certain they are ready to compete, and win, in the global economy of the 21st century.

To my colleagues in the U.S. Department of Transportation, I welcome your participation. And to those of you representing other Federal agencies and industry, public interest and environmental groups, I welcome your partnership. Thank you for your efforts.

President Clinton, Vice President Gore, and all of us at the U.S. Department of Transportation will continue to vigilantly work with you to ensure that our Nation's marine transportation system is ready for the next century. Our waterways, ports, and their intermodal connections must meet the needs of a wide range of users. They must fulfill the public's expectations. And they must provide safe, effi-

cient, and environmentally responsible transportation.

To identify what changes may be needed, we actively sought perspectives and ideas from everyone affected. We have received valuable input from many users – including commercial, national defense, and recreational interests. By listening and learning, we are working together to improve the system and prepare for the tremendous growth in maritime commerce expected in the years ahead.

President Clinton – in his State of the Union Address – called again for “common sense” government. Let me say that I share his commitment. In this department, I call common sense government ONE DOT. And the work of the Marine Transportation System Task Force has been a shining example of ONE DOT and common sense government at work to put every American first. Clearly, there will be differences of opinion, and differing needs. But know this – every American shares a common goal: to keep the Nation's transportation system the very best in the world.

We are relying on all of you for your continued support and leadership. Help us ensure that America's marine transportation system will serve the interests of the Nation now, and into the future.

We have made great progress. So believe me when I say: the best is yet to come.

Rodney E. Slater
Secretary of Transportation

EXECUTIVE SUMMARY

The U.S. Marine Transportation System (MTS) consists of waterways, ports and their intermodal connections, vessels, vehicles, and system users. Each component is a complex system within itself and is closely linked with the other components. It is primarily an aggregation of State, local, or privately owned facilities and private companies. As with the U.S. economy as a whole, decision making and investment are primarily driven by the marketplace. In addition, national, State, and local governments participate in the management, financing, and operation of the MTS.

More than 1,000 harbor channels and 25,000 miles of inland, intracoastal, and coastal waterways in the United States serve over 300 ports, with more than 3,700 terminals that handle passenger and cargo movements. The waterways and ports link to 152,000 miles of rail, 460,000 miles of pipelines, and 45,000 miles of interstate highways. Vessels and vehicles transport goods and people through the system. The MTS also contains shipyards and repair facilities crucial to maritime activity.

As the world's leading maritime and trading nation, the United States relies on an efficient and effective MTS to maintain its role as a global power. The MTS provides American businesses with competitive access to suppliers and markets in an increasingly global economy. The MTS transports people to work; provides them with recreation and vacation opportunities; puts food on their tables; and delivers many of the items they need in their professional and personal lives. Within the United States, the MTS provides a cost-effective means for moving major bulk commodities, such as grain, coal, and petroleum. It is a key element of State and local government economic development and job-creation efforts and the source of profits for private companies. With its vast resources and access, the MTS is an essential element in maintaining economic competitiveness and national security.

Annually, the U.S. marine transportation system:

- Moves more than 2 billion tons of domestic and international freight;
- Imports 3.3 billion barrels of oil to meet U.S. energy demands;
- Transports 134 million passengers by ferry;

- Serves 78 million Americans engaged in recreational boating;
- Hosts more than 5 million cruise ship passengers; and
- Supports 110,000 commercial fishing vessels and recreational fishing that contribute \$111 billion to State economies.

The MTS provides *economic value* by affording efficient, effective, and dependable all-weather transportation for the movement of people and goods. Waterborne cargo alone contributes more than \$742 billion to U.S. gross domestic product and creates employment for more than 13 million citizens.

The MTS provides *national security value* by supporting the swift mobilization and sustainment of America's military. As an example, 90 percent of all equipment

and supplies for Desert Storm were shipped from U.S. strategic ports using our inland and coastal waterways.

The MTS provides *environmental value* by being an environmentally responsible method of transportation. Ships and barges have the fewest accidental spills or collisions of all forms of transportation. Waterways are an attractive alternative transportation mode for relieving congestion on roads and rails. The impact of increased MTS activity on the environment, however, has been an increasing concern.

The MTS provides *recreational value* to millions of Americans who participate in recreational boating and fishing or take sightseeing, excursion, dining, gaming, windjamming, whale watching, or nature cruises.

ties through waterfront redevelopment that has focused on residential, commercial, and tourist-related uses, leaving less land available for port development. Intermodal connections at ports also experience land constraints because of zoning and environmental regulations that restrict expansion, particularly in densely populated areas.

Enhancing Coordinations: A recurring theme has been the need for comprehensive coordination, leadership, and cooperation among Federal, regional, State, and local agencies, as well as private sector owners and operators. MTS users often are unaware of the other public and private users' activities and inherent limitations. Federal, State, and local MTS service providers have not coordinated their efforts nor have they reached a consensus on goals and actions to maximize efforts and resulting benefits for the entire spectrum of MTS users and beneficiaries. Establishing partnerships (public-public, public-private, private-private) among competitors or organizations that operate with different and independently developed MTS objectives is difficult.

Ensuring a Safe System: With the rapid expansion of trade and recreational opportunities in recent years, many parts of the MTS are being stretched to their limits to cope with the size, speed, and diversity of vessels and users of the MTS. Human factors, ranging from the growth in personal watercraft use to inadequately trained crews, clearly contribute to MTS-related accidents.

Funding the System: Funding to create an MTS capable of meeting the increased demands of trade, passenger, and recreational use, coupled with national security, environmental stewardship, and safety requirements, is a responsibility of both the public and private sectors. Improvements in technology, better coordination, and process improvement will help, but not entirely relieve, the government and the private sector of growing resource and investment demands. In turn, this issue may give rise to the need for innovative financing mechanisms or user fees.

Sustaining the Environment: MTS encompasses some of our Nation's most treasured resources including coastal and estuarine waters, inland rivers, and associated wetlands and critical habitats. As such, MTS users and service providers, from recreational boaters to commercial vessels and waterfront terminals, should operate in a manner that protects and sustains the environment. Marine operations, maintenance, and investment should be in harmony with environmental protection. Environmental quality is

What are the Critical Issues Facing the MTS?

As comprehensive as the MTS is today, its ability to handle the emerging needs of tomorrow will be severely challenged.

Growing Levels of Demand: The total volume of domestic and international marine trade is expected to more than double over the next 20 years. The number of recreational users is expected to grow by over 65 percent to more than 1309 million annually in the next 20 years. High-speed ferry transportation is experiencing rapid growth in response to land-transport congestion. Cruise ships anticipate attracting 6.5 million passengers by 2002. Commercial fishing is projected to increase. Military reliance on the MTS for force projection and sustainment is also expected to grow in the new millennium.

Shifting User Requirements: The business environment in which American companies must operate has become more competitive. They must be lean and capable of effectively serving larger, more demanding markets. Ports and other MTS operators must meet increasingly stringent requirements to successfully compete for American business. Everything must be accomplished faster and less expensively, while maintaining dependable, secure, and safe movement of goods. In response, transportation providers are merging or entering into business alliances. They are deploying new technologies and equipment to reduce the cost of moving goods and meet the needs of shippers. This includes larger and faster vessels capable of carrying more than 6,000 20-foot containers; double-stack trains for effectively transporting shipments over land; and advanced tracking systems so that businesses know

where their goods are.

More Pressure on Infrastructure and Ensuring a Competitive MTS:

The physical infrastructure and information systems that support the MTS must adapt to these changing needs. Key infrastructure issues include:

- *Dredging and marking the harbor channels that connect U.S. ports to the world.* Larger vessels, while more cost-efficient, require deeper waterways. Overall, the Nation's future dredging requirements can be expected to grow.
- *Modernizing locks and dams to regulate water flow and facilitate commerce.* By 2000, more than 44 percent of the inland waterway locks and dams will be at least 50 years old. Many locks are undersized for modern commercial barge movements.
- *Improving marine terminal capacity and access to rail, road, and pipeline.* Seamless movement of goods across transportation modes and geographical areas is needed to minimize transportation costs borne by the American consumer.
- *Advancing computer, communications, and navigation technologies to increase the productivity, safety, and security of the MTS.* Technologies include Intelligent Transportation Systems (ITS), such as Differential Global Positioning Systems (DGPS), Vessel Traffic Services (VTS), Physical Oceanographic Real-Time Systems (PORTS), and Electronic Navigational Charts (ENCs).
- *Minimizing conflicts among land uses along the waterfront and intermodal connections.* Many of our Nation's cities are trying to revitalize their communi-

essential for sustaining coastal and marine ecosystems, commercial and recreational fisheries, and the economic vitality of the MTS. Thus, the MTS decision making and planning must acknowledge and account for the fundamental interdependency between the MTS and the environment.

Increasing National Security

Needs: The MTS encompasses a security landscape characterized by a rise in international organized criminal activity,

along with a growing array of rogue states and terrorists. MTS users and service providers must deal with criminal enterprises that seek to exploit vulnerabilities in the system to pilfer cargo or smuggle contraband. MTS service providers must be vigilant to potential terrorist opportunities. The MTS must remain capable of supporting national security objectives – the projection of U.S. military force and their sustainment depends 90 to 95 percent on sealift deployment.

What is the Desired State of the MTS in 2020?

Task Force members adopted the following vision statement that was developed at the MTS National Conference:

The U.S. Marine Transportation System will be the world's most technologically advanced, safe, secure, efficient, effective, accessible, globally competitive, dynamic and environmentally responsible system for moving goods and people.

To realize this vision, the Task Force members also adopted the following set of guiding principles, which were designed at the MTS National Conference to shape the strategies and actions necessary to achieve the MTS for 2020. Achieving this vision is the equal responsibility of private, local, State, and national stakeholders.

- Integration of the MTS with domestic and international transportation systems will provide for the national security, ensure economic well-being, enhance

the quality of life, and ensure environmental protection.

- Clearly defined, coordinated, and consistent Federal leadership is needed to achieve the vision for the MTS.
- Public-private sector partnerships will meet MTS challenges through shared responsibility, accountability, and agreement on funding.
- MTS decisions will be based on full consideration of and harmonization among diverse interests.
- Aggressive, cost-effective technology development and deployment are essential to maintaining long-term competitiveness.
- People – work force, passengers, and other stakeholders – are critical to the successful operation of the MTS, and human factors are essential to its development.

How Can We Attain the Vision of MTS 2020?

The Task Force recommended the following strategic actions, which must begin now to move the current MTS toward the system needed in 2020:

Facilitate coordination among MTS users and stakeholders: Improved coordination – among and through the public and private MTS stakeholders at the local, regional, and national levels – is a key element of the MTS envisioned for 2020. Greater Federal coordination will better inform policy makers on legislation, investment strategies, resource allocations, and regulations, without duplicating or overlapping existing decision-making processes.

A *Coordination Framework* provides the mechanism for achieving this objective. Coordination at the national level consists of a new Federal Interagency Committee for the Marine Transportation System (ICMTS), created through the expansion of the existing Interagency

Committee for Waterways Management (ICWWM), and an MTS National Advisory Council (MTSNAC). The ICMTS will be the national coordinating body where Federal agencies responsible for one or more aspects of the MTS come together and discuss strategies to minimize duplicate efforts and coordinate overlapping functions. The MTSNAC will provide a structured approach for non-Federal stakeholders to contribute input to national-level issues. The MTSNAC will be composed of senior-level representatives from non-Federal organizations. Additional key elements of the MTS coordination framework include local and, where appropriate, regional committees.

Address MTS funding issues:

Funding is at the core of many issues relating to the MTS, but it was one on which the Task Force could not reach full consensus. However, the Task Force did recommend a four-step process to gain a

better understanding of MTS funding:

- **Coordinate public funding processes.** There is a need to better coordinate Federal resource considerations using a systems perspective rather than a mode-by-mode or activity-by-activity basis to maximize the use of limited resources.
- **Define MTS funding mechanisms.** Federal funding, including potential user fees and private investment alternatives, should be examined and defined to the best extent possible. This analysis will provide MTS stakeholders with a better understanding of public and private funding sources.
- **Forecast demands on the MTS.** A clear understanding of the projected demands will provide guidance and information to public and private decision makers regarding investments.
- **Explore innovative funding mechanisms.** The objective of this effort is to maximize the ability of stakeholders to leverage limited fiscal resources and to make more effective use of existing funds.

Achieve the vision for system mobility and competitiveness:

The ability to move people and cargo freely without infrastructure impediments or congestion delays is essential. Infrastructure that may have served well in the recent past, or is currently serving adequately, may become inadequate in the near future, causing unacceptable delays and costs. Actions are recommended in five strategic areas:

- **Establish a vessel clearance information exchange and one-stop shopping.** Establish one-stop shopping for Federal inspection and reporting requirements. Where appropriate, partnerships among Federal agencies and State and local governments should be developed. This recommendation includes the coordination and streamlining of multiple agency inspections and procedures.
- **Facilitate landside access to ports.** A concerted effort among port interests along coastal ranges is needed to address this issue. The feasibility and effectiveness of a port-oriented, intermodal program of Intelligent Transportation System (ITS) projects for addressing MTS capacity issues should be pursued. Local and State forums involving public and private sector stakeholders should be established to evaluate port access projects. These efforts would facilitate a rational analysis and a factual basis for decisions.
- **Create a national cooperative MTS research program.** A national cooperative MTS research program would coordinate and enhance MTS-related research by government agencies and

the private sector in support of assigned public mandates and market priorities. Such a national program would also serve to foster and support intermodal MTS technology requirements that are beyond the scope of individual agency mandates and the funding priorities and interests of the private sector.

- *Develop systemwide traffic forecasts.* MTS infrastructure investment should be based on realistic forecasts of growth trends, along with the changing patterns of both domestic and foreign traffic. Forecasts should be developed for planners and stakeholders at the national, regional, and local levels, as appropriate, that incorporate alternative scenarios of U.S. and world market trends, energy sources, and internal U.S. demographic and economic regional shifts. Forecasts should also be periodically reviewed and updated.

Improve awareness of the MTS:

Many Task Force members expressed a desire to better inform the general public and policy makers as to the value and role of the MTS in people's daily lives. The Task Force recommends that State, local, and private sector MTS stakeholders give priority to promoting the overall value of the MTS through their existing trade associations and other outreach efforts. In conjunction with National MTS stakeholders, these groups should also:

- Develop a collective set of cohesive messages to inform the public about the MTS and its relationship to their quality of life.
- Promote the Nation's maritime heritage and the value of a career in the MTS.
- Develop programs and outreach efforts to promote the responsibility of the boater, mariner and maritime professionals to protect the marine environment.

Establish information management and infrastructure supportive of the MTS: The quality of the information systems within the MTS is a key determinant in the safety, security, environmental soundness, and mobility of the system. Actions are recommended in three strategic areas:

- *Hydrographic and weather information.* Some of the greatest safety concerns relate to the availability of timely, accurate, and reliable navigation information. Providing accurate and timely hydrographic, charting, and meteorological data is crucial to the future performance of the MTS, the safety of vessels and passengers, and the minimization of risks to the environment.
- *Tracking cargo, passengers, and vessels.* Government agencies and many commercial private sector organizations

require pertinent vessel, cargo, and passenger location and movement information to support MTS commercial operations as well as incident response, emergency management, and law enforcement activities. The integration of existing systems and design of any planned systems should be undertaken to maximize MTS operational awareness in support of these efforts.

- *Waterways traffic management information.* Systems supporting traffic controls and navigation assistance should be capable of providing order and predictability to commercial and recreational users, while simultaneously maximizing system capacity for safe vessel movement. Such systems will provide mariners, as well as port and waterways managers, with access to timely and accurate information on all matters pertaining to the waterways, the activity within the waterways, and the vessels, cargo, and crews of vessels transiting the waterways.

Meet national security objectives: The rising demands for efficient and uninterrupted MTS operations to service the projected growth in passenger and cargo movements should be balanced with the need to invoke safeguards and inspections to protect against the array of security threats, and support military mobilization. Two strategic action areas are:

- *Organized crime and terrorism.* Much of the investment in security infrastructure and protection of port facilities is the responsibility of State or private sector managers with support from Federal agencies. Yet, current policies prevent sharing intelligence information related to security threats and vulnerabilities with these entities. The Presidential Interagency Commission on Crime and Security in U.S. Seaports will heighten national awareness of security issues in the areas of cargo crimes, smuggling and terrorism and develop a coordinated interagency approach to MTS port security which addresses seaport organized crime and terrorism. Areas recommended for consideration and further development by the Commission include security awareness, system transparency, public and private sector coordination, and international cooperation. The Task Force defers to the Commission to make specific recommendations.
- *Military Mobilization and National Defense.* With growth in congestion and activity within the MTS there is increased opportunity for those with ill intent to avoid detection. Most governments and non-state actors will avoid

force on force confrontation with the U.S. military. However, they may attempt to target the MTS to disrupt commercial carriers serving to mobilize military cargo and assets or attack U.S. critical infrastructure. Recommendations in this area include:

- *Vulnerability assessments.* Establish baselines and conduct periodic reviews of the DOD strategic ports and waterways to determine vulnerabilities and readiness to meet mobilization requirements. Include exercises that test the readiness and ability to conduct uninterrupted mobilization while under asymmetrical attacks, e.g., chemical, biological, and information/control systems.
- *Ensure qualified operators.* As the U.S. relies more on commercial transportation activities to support national security objectives during contingencies, there is greater need to attract and retain a qualified MTS work force. MTS operators need to ensure continued use of qualified and well-trained personnel.
- *Forge stronger public/private partnerships.* Stronger interagency and public/private sector partnerships are needed to support military mobilization and port training exercises. A collective public and private approach to support and sustain the Nation's capacity for uninterrupted rapid deployment of U.S. forces should be developed and implemented. This includes assurance of shipbuilding and repair infrastructure needed to maintain the U.S. fleet.

Achieve safety and environmental objectives: Two primary goals of the MTS are the safety of people and property and the protection of the environment. These areas are of paramount importance to all MTS users and stakeholders. Environmental protection will be consistently incorporated into all aspects of marine activities and decision making. The breadth and depth of safety and environmental issues require a systematic approach as well as specific actions to achieve the desired MTS in 2020. Specific strategic areas of action identified by the Task Force include:

- *Local coordination.* Local committees should pursue safety and environmental concerns related to the MTS and develop and execute collective actions. For these purposes, the mission of existing harbor safety committees or local planning groups could be expanded to conduct comprehensive assessments of local safety and environmental risks and needed actions.
- *Ship-terminal interface.* Safety and envi-

ronmental risks posed by some marine terminals include facilities that are too small for the ships served or poorly located; inadequately manned by personnel lacking training and experience; operating under inadequate procedures; and using inadequate or poorly maintained cargo handling equipment. Port operators should initiate assessments, where needed, to review safety and environmental protection systems; operational procedures and personnel training; and accident and fire drills. The assessments would identify a prioritized list of actions and assign responsibilities for improving safety and environmental protection.

- *Port development and terminal operations.* Port and terminal operations pose potential multiple media environmental risks, such as from storm water runoff, port expansion, vessel support activities, cargo handling, chemical storage and handling, motor carrier and rail port activities, and public access and recreation. Ports should continue to work closely as environmental stewards with Federal, State, and local governments, as well as other stakeholders, to conduct operations and development in an environmentally responsible manner.
- *Vessel operation and the human element.* Actions to address the human element in the areas of vessel navigation, recreational boating, and accidental discharges are needed and recommended as they offer the greatest potential for risk reduction.
- *Vessel discharges and shore reception facilities.* Almost all ships generate oily water mixtures from normal engine room and bunkering operations, cargo residues, sewage, and solid waste such as refuse. A vessel can legally deal with these pollutants using either shipboard techniques or by transferring wastes to a Shore Reception Facility (SRF). New shipboard techniques for environmentally sound handling of shipborne-generated wastes have moderated demand for SRFs; however, a need for SRFs still exists. Ports should assess their inventory of current and projected vessel discharges and an assessment of the capacity of existing SRFs should be prepared. These analyses would form the basis for developing prioritized actions to handle vessel discharges in an environmentally sound manner and support research and development to reduce discharges and air emissions.
- *Noindigenous species.* The introduction and spread of exotic or noindigenous species into an area continue to cause adverse economic, ecological, and human health impacts. The movement

of these species to and throughout the U.S. occurs in ballast water, cargo, and on vessel hull surfaces. Recommendations include focusing on ballast water management research and technologies, along with working internationally to establish a legally binding process and industry standards for ballast water management.

- *Dredging and channel design.* Channel design and dredging are complex undertakings that impact MTS safety, the environment, and mobility. Channel dredging costs and environmental impacts, including the capacity to dispose of dredged material, are significant concerns. The application of a systematic approach and continuity with previous work in this area are essential for success. Several specific actions recommended by the Task Force include:
 - Pursue continued efforts in dredged material management and encourage and guide stakeholders to explore beneficial uses and adopt a watershed approach. Integrate dredged material management planning into local/regional watershed planning. The focus should shift from dredging and disposal to overall sediment management, which includes the need for holistic watershed and local/regional planning efforts.
 - The National Dredging Team (NDT) should coordinate and communicate its efforts with the ICMTS. The NDT is encouraged to continue to address dredged material management issues and initiatives, such as supporting the Regional Dredging Teams, promoting

beneficial use of dredged material, developing scientific tools, resolving national dredged material management issues, and promoting public education and outreach to stakeholders.

- Conduct research on effective sediment management, including research into the effect of structures such as weirs on navigation and improved dredging techniques to reduce concerns such as the release of bottom contaminants.
- Incorporate provisions into all channel development projects for protection and/or improvement of permanent and seasonal wetlands and other aquatic habitats.
- Apply hydrodynamic and maneuvering criteria to new channels and some existing channels and vessels to determine acceptable ship sizes and vessel traffic controls such as no-passing and non-meeting zones. Analyze the trade-off between vessel operations and channel criterion with the participation of all stakeholders.
- Support and conduct research on improved navigation system efficiency and safety, which can moderate the need for dredging. Prepare and publish current guidance on design of waterway approach channels, including channel width and depth for mixed deep and shallow-draft vessel traffic; waterway use and allocation conflicts; ice mitigation measures for navigable rivers; and control of icing at locks and dams.

Who Needs to Take the First Step?

This Report provides an overall framework and general direction for both public and private MTS stakeholders to follow to achieve the MTS vision in 2020. Federal Task Force members are encouraged to promote the report recommendations within the policy and budget processes of their Departments and agen-

cies. Non-Federal stakeholders are encouraged to make these recommendations a priority within their operations.

The development of this report has been a collaborative public and private sector effort. Continued cooperation and coordination will be essential to achieving our shared MTS vision.

Notes by the Head Office: With sincere thanks to Mr. John Pisani, Deputy Administrator, MarAd for his kind arrangement for IAPH, this office takes the privilege of introducing the Executive Summary of "An Assessment of the U.S. Marine Transportation System (MTS) - A Report to Congress, September 1999". Mr. Pisani was the co-chair of the MTS Task Force Teams. For obtaining this report, please write to: The Office of Ports and Domestic Shipping, Maritime Administration, 400 Seventh Street SW, Washington, D.C. 20590, U. S. A.

WORLD PORT NEWS

Sea Europe '99 Conference Nov. 2 & 3 at Hamburg

Lloyd's List will present the Fifth Sea Europe '99 Conference on Tuesday, November 2 and Wednesday, November 3, 1999 at Hotel Inter-Continental, Hamburg, Germany.

The event sponsored by the Port of Hamburg will be supported by the European Commission, German Ship-owners' Association, Hamburg Ship-brokers' Association, and International Federation of Freight Forwarders' Association.

To reserve your place, please call: +44 (0) 20 7453 5492.

BIMCO: Ballast Water Reporting Is Mandatory

MEMBERS are reminded of the mandatory ballast water reporting and sampling procedures applicable to nearly all vessels entering US waters, as mentioned in BIMCO Weekly News, No.28, 14 July 1999. The history of these regulations covers the past decade. In 1990, the US Congress enacted the Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990 (NANPCA). Under NANPCA, all vessels entering the Great Lakes and portions of the Hudson River from outside the US exclusive economic zone are required to exchange ballast water in the open ocean.

The US Congress agreed to expand NANPCA in 1996 through the introduction of the National Invasive Species Act (NISA). Designed to provide the US Coast Guard with detailed information on ballast water management practices, NISA mandates sampling procedures and reporting requirements for all vessels entering US waters. In addition, NISA establishes voluntary ballast water exchange guidelines.

The USCG has indicated that the guidelines may become mandatory should they find that the rate of voluntary compliance is inadequate. Mandatory regulations would force all vessels entering US waters to perform ballast water exchange in the open sea. Owners and operators would then face

civil and criminal penalties should they fail to perform ballast water exchange outside the US exclusive economic zone.

The NISA regulations have been implemented in response to the escalating invasion of US waters by non-indigenous aquatic species. All reports will be compiled and the results presented to the US Congress biennially. The summary will include information on patterns of ballast water delivery and management, an analysis of ballast water management by vessel type, geographic region and season, and an assessment of the accuracy of the data through independent data sources and direct water testing.

For more information on US ballast water management procedures and to obtain copies of the mandatory reporting form, visit the US National Ballast Water Information Clearing House Web Site at www.serc.si.edu/invasions/ballast.htm and the BIMCO Web Site, or contact the Secretariat directly. (TP)

IPER Seminar on Port Equipment Maintenance

IPER will organize a seminar on "the Management of the Port Equipment Maintenance" November 15 through November 19, 1999 at Le Havre.

The seminar has been specially designed for high level executives or managers from port authorities or cargo-handling companies, who are responsible for the development and implementation of an equipment management policy. The seminar content also aims to assist senior civil servants in the ministries of transport, responsible for equipment policies.

Objectives: Maintenance systems and the impact on the investment policy, the operational arrangements, the management of human resources, the quality of the information systems and the institutional framework will be extensively covered in the seminar, using interactive pedagogical techniques.

Programme Director

B.J. THOMAS, Senior Lecturer, Department of Maritime Studies, University of Cardiff

Lecturers

B.J. THOMAS, Senior Lecturer, Department of Maritime Studies, University of Cardiff

P. COLLIER, Consultant – Mechanical Engineer

Programme

Planning of the Port Equipment Inventory

- The need for an equipment plan
- The investment decision – planning procedures

Equipment Procurement

- Equipment procurement strategies and policies
- Specifications and bidding documents – tendering practices
- Bid evaluation – execution of the contract

Maintenance Management

- Organization of the Engineering Department
- Maintenance policies, strategies and tactics
- Maintenance facilities, equipment, planning, procedures and costs
- Maintenance performance

Supplies Management

- The importance of supplies to maintenance
- Procedures and practices – stores organization

Management of Equipment Operation

- Operational factors affecting maintenance
- The management of equipment allocation and operation
- Equipment running cost – operating records

Manpower Development

- The role of manpower development
- Training systems – changing attitudes

Engineering Management Information Systems (EMIS)

- The Maintenance Department/Operational/Supplies Management Information Systems
- The nature and the use of the EMIS – the central role of the EMIS

The Institutional Framework of Equipment Management

- The port objectives and equipment management
- The exercise of government control

Improving the Management of Maintenance

- Implications for decision-makers in ports

Participation fee: 7,200 FF/1,098 €.

This fee covers registration, documentation, lunches during lecturing days.

Participants are requested to send the registration form at least two weeks before the start of the programme to IPER.

Payment of registration fee

• In advance of the Seminar

- by bank transfer: to IPER/Chambre de Commerce et d'Industrie du Havre Credit Industriel de Normandie Le Havre account 00019-0471900312N
- or by cheque: to IPER/Chambre de Commerce et d'Industrie du Havre

• Or on the first day of the Seminar

- by cheque: to IPER/Chambre de Commerce et d'Industrie du Havre
- or in cash: in French Francs

IPER cannot be responsible for any changes to the programme due to circumstances beyond its control, and in particular due to the cancellation of a training activity because of an insufficient number of registrations.

Cancellation must be in writing (by letter or fax) and addressed to the registration service as soon as possible. For any cancellation declared less than one week before the start of the training activity only 50% of the paid participation fee will be reimbursed. No reimbursement will be made if no cancellation was received, or if the participant's cancellation is received after the start of the training programme.

Regarding financial assistance, Please contact IAPH: Bursary scheme available to IAPH member port staff in developing country.

bulk carriers of 150 metres or more in length (built after 1 July 1999) carrying cargoes with a density of 1000 kg/cm³ and above should have sufficient strength to withstand flooding of any one cargo hold, taking into account dynamic effects resulting from the presence of water in the hold and taking into account recommendations adopted by IMO.

For existing ships (built before 1 July 1999) carrying bulk cargoes with a density of 1780 kg/m³ and above, the transverse watertight bulkhead between the two foremost cargo holds and the double bottom of the foremost cargo hold should have sufficient strength to withstand flooding and the related dynamic effects in the foremost cargo hold.

Cargoes with a density of 1780 kg/m³ and above include iron ore, pig iron, steel, bauxite and cement. Less dense cargoes, but with a density of more than 1000 kg/m³, include grains such as wheat and rice, and timber.

Chapter XII allows surveyors to take into account restrictions on the cargo carried when considering the need for, and the extent of, strengthening of the transverse watertight bulkhead or double bottom. When restrictions on cargoes are imposed, the bulk carrier should be permanently marked with a solid triangle on its side shell.

The date of application of chapter XII to existing bulk carriers depends on their age. Bulk carriers which are 20 years old and over on 1 July 1999 will have to comply by the date of the first intermediate or periodical survey after that date, whichever is sooner. Bulk carriers aged 15-20 years must comply by the first periodical survey after 1 July 1999, but not later than 1 July 2002. Bulk carriers less than 15 years old must comply by the date of the first periodical survey after the ship reaches 15 years of age, but not later than the date on which the ship reaches 17 years of age.

Bulk carrier safety background

Modern bulk carriers, often described as the workhorses of maritime trade, can be traced back to the 1950s when shipyards began building ships designed specifically for carrying non-packed commodities such as grains or ores.

IMO has been concerned with the safety of these ships since it first met in 1959. The 1960 SOLAS Convention – later replaced by SOLAS 1974 – included a chapter devoted to the carriage of grain, while a Code of Safe Practice for Solid Bulk Cargoes (BC Code) was

New Bulk Carrier Regulations Now in Force

A new chapter of the International Convention for the Safety of Life at Sea (SOLAS), 1974, on bulk carrier safety, enters into force on 1 July 1999. A number of other amendments to SOLAS also enter into force on the same day.

New chapter XII to SOLAS, "Additional safety measures for bulk carriers"

The regulations on bulk carrier safety were adopted at a conference held in November 1997, which was the culmination of several years work at IMO intended to address the rising numbers of bulk carriers being lost at sea – often with complete loss of crew on board – during the early 1990s.

The requirements for bulk carriers are included in a new chapter XII of SOLAS. They cover survivability and structural requirements for dry bulk carriers – which carry products such as iron ore, grains and coal – to prevent them from sinking if water enters the ship for any reason. Existing ships which do not comply with the appropriate requirements will have to be reinforced – or they may have to limit either the loading pattern of the cargoes they carry or

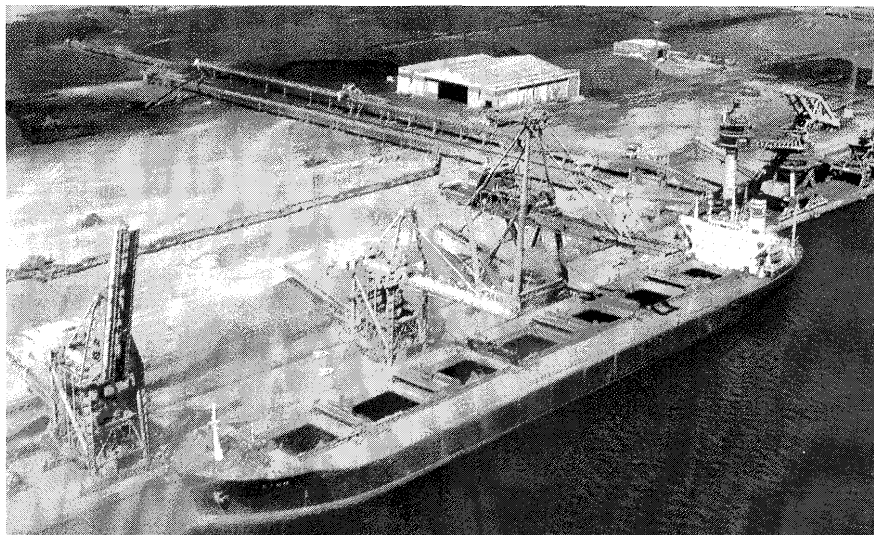
move to carrying lighter cargoes, such as grain or timber.

The requirements arose from research by IMO Member States and industry organizations. A study into bulk carrier survivability carried out by the International Association of Classification Societies (IACS), at the request of IMO, found that if a ship is flooded in the forward hold, the bulkhead between the two foremost holds may not be able to withstand the pressure that results from the sloshing mixture of cargo and water, especially if the ship is loaded in alternate holds with high-density cargoes (such as iron ore). If the bulkhead between one hold and the next collapses, progressive flooding could rapidly occur throughout the length of the ship and the vessel would sink in a matter of minutes.

The IACS concluded that the most vulnerable areas are the bulkhead between numbers one and two holds at the forward end of the vessel and the double bottom of the ship at this location. It proposed that particular attention should be paid to these areas during special surveys of ships and, where necessary, reinforcements should be carried out.

SOLAS chapter XII regulations

The regulations state that all new



A bulk carrier at Fos, France. (Photograph by J.P. Jauffret, courtesy Port Autonome de Marseille)

adopted in 1965. Over the years, IMO has amended sections of the SOLAS Convention applicable to bulk carriers to keep it up to date, revised the BC Code and adopted the International Code for the Safe Carriage of Grain in Bulk (International Grain Code), which was subsequently made mandatory under SOLAS.

But a dramatic increase in losses of bulk carriers in the early 1990s raised alarm bells at IMO. Many of the ships that were involved suffered severe structural damage and sometimes literally broke in two, often with heavy loss of life. In 1990, 20 bulk carriers were lost with 94 fatalities, and 24 bulk carriers were lost in 1991 with 154 lives.

As a result, in 1991 the Assembly of IMO adopted an interim resolution, proposed by the Secretary-General, Mr. William A. O'Neil, to improve bulk carrier safety, concentrating on paying attention to the structural integrity and seaworthiness of ships and ensuring that the loading and carrying of cargo would not cause undue stresses. The casualty rate improved after this, but in 1994 was again causing concern. On the recommendation of Mr. O'Neil, IMO therefore established a correspondence group to consider the whole issue of bulk carrier safety and make proposals for changes in existing conventions concerning the structure and operation of bulk carriers.

Current work on bulk carrier safety

IMO is currently reviewing whether further measures will be needed to enhance bulk carrier safety, following the publication of the United Kingdom report into the sinking of the bulk carrier *Derbyshire* in 1980, with the loss of

all on board.

The report was presented to the Maritime Safety Committee (MCS) in May 1998 by the United Kingdom and contains further recommendations relating to the design and construction of bulk carriers. Issues under consideration by the MSC and its Sub-Committees include:

- 1 strength of hatch covers and coamings;
- 2 freeboard and bow height;
- 3 reserve buoyancy at fore end, including forecastles;
- 4 structural means to reduce loads on hatch covers and forward structure; and
- 5 foredeck and fore end access.

Vessel Traffic Services (VTS)

Regulation 8-2 of SOLAS chapter V (Safety of Navigation) on Vessel Traffic Services (VTS), adopted in June 1997, enters into force on 1 July 1999.

Vessel Traffic Services are traffic management systems, for example those used in busy straits.

The regulation sets out when VTS can be implemented. It says that they should be designed to contribute to the safety of life at sea, safety and efficiency of navigation and the protection of the marine environment, adjacent shore areas, worksites and offshore installations from possible adverse effects of maritime traffic.

Governments may establish VTS when, in their opinion, the volume of traffic or the degree of risk justifies such services, but no VTS should prejudice the "rights and duties of governments under international law" and a VTS may only be made mandatory in sea areas

within a State's territorial waters.

Stability requirements for passenger ships

In SOLAS chapter II-1, concerning subdivision and damage stability requirements, regulation 8.3 on "Special requirements for passenger ships, other than ro-ro passenger ships, carrying 400 persons or more" enters into force on 1 July 1999. The special requirements of the regulation, which was adopted in 1997, are aimed at ensuring that a ship carrying 400 persons or more can survive without capsizing with two main compartments flooded following damage.

Escape routes on ro-ro passenger ships

SOLAS regulation II-2/28.3 covers escape routes on ro-ro passenger ships constructed after 1 July 1999. It requires escape routes to be evaluated by an evacuation analysis early in the design process, aimed at identifying and eliminating congestion which may develop if a ship has to be evacuated. The analysis should also demonstrate that escape arrangements are sufficiently flexible to allow for the possibility that certain escape routes may not be available due to a casualty.

The regulation was adopted in November 1995 as a part of a package of amendments adopted following the *Estonia* ferry disaster of September 1994.

Decision-support system for passenger ships

SOLAS regulation III/29 requires all passenger ships built before 1 July 1997 to provide a "decision-support system" for emergency management on the navigation bridge not later than the first periodical survey after 1 July 1999. (This regulation came into effect for new ships on 1 July 1997.) The decision-support system requires, as a minimum, a printed emergency plan or plans covering foreseeable emergency situations, including fire, damage to ship, pollution and unlawful acts.

This regulation was also adopted in November 1995 as part of a package of amendments adopted following the *Estonia* ferry disaster of September 1994.

Helicopter landing areas

Under the November 1995 SOLAS amendments which entered into force on 1 July 1997, regulation 28 of chapter III requires passenger ships of 130 metres in length and over built after 1

July 1999 to be fitted with a helicopter landing area.

However, the Maritime Safety Committee (MSC) is currently reviewing these requirements.

(Ro-ro passenger ships had to provide a helicopter pick-up area from 1 July 1997 or have one fitted not later than the first periodical survey after 1 July 1997.)

2nd Congress of IHMA 28 April - 4 May 2000

THE 2nd Congress of the International Harbour Masters Association (IHMA) is to be hosted by Dubai Ports Authority at the Le Meridien Hotel from 28th April to 4th May 2000 in Dubai.

The IHMA was formed in June 1996 and now has a world-wide membership of over 300 members. The aims of the IHMA are to develop and foster collaboration among harbour masters and to promote safe and efficient marine operations in port waters.

The Congress, expected to attract 150 delegates, will focus on "Professionalism in Ports". The guest speakers will present papers on matters such as Safety Management in Ports, Environmental Issues, Developments in Information Technology, Vessel Traffic Systems (VTS), etc. An exhibition will also be held as part of the Congress displaying the latest developments in port and marine technology.

For further information please contact:

Smita Prabhakar, Managing Partner,
AMS International.

P.O. Box 13232, Dubai, UAE

Tel: 971 4 3970588 Fax: 971 4 3970589

and estimated port costs from more than 700 ports world-wide, together with information on the availability of reception facilities for dirty ballast water, slops, sludge, chemicals and other waste products in over 90 countries.

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CHINA: Opportunities and Challenges for World Shipping

IN just about every facet, China is set to be the biggest single influence in (and on) the shipping industry over the next decade. According to the latest report from Drewry Shipping Consultants Ltd, *CHINA: Opportunities and Challenges for World Shipping*, China is on course to create substantial increases in shipping demand arising from its own trading needs and become a major force in shipbuilding and shiprepair. It will continue to run one of the world's largest shipping fleets and its operations will become rationalised and competitive.

Among the conclusions reached in *CHINA: Opportunities and Challenges for World Shipping*, Drewry foresees:

- In the liquid bulk trades, Chinese crude oil imports should soar – perhaps trebling in the next decade. Significant increases will be seen in products imports. The big issue, however, could be gas imports.
- In the container trades, Chinese port throughput should also rise rapidly as teu growth generally runs well ahead of GDP growth. China expects its GDP to double between 2000 and 2010. This has major implications for ports as

increasing numbers of lines are making direct calls at mainland ports. This is putting Chinese ports in direct competition with Hong Kong – a possible factor in Hong Kong losing its world No. 1 throughput ranking.

- In the main dry bulk trades, there is considerable upside potential for iron ore imports while China is set to be increasingly reliant on imports of grain. With grain imports, demand may only be constrained by political moves. Although the path may not be easy, China should create a rising export profile for coal and coke.
- China has expressed overtly its goal to be the dominant force in world shipbuilding. The next decade will see considerable progress on this front. The recent reorganisation of China State Shipbuilding Corporation into two new operations could be very significant as it offers the prospects of buyers picking their yards of preference and a change in the broking process used to procure orders for Chinese yards.
- China has become a force to be reckoned with in the shiprepair industry. It has come to the fore for work with a high steel replacement need. Its competitors may have cause to be nervous.
- The Chinese fleet – run from the mainland and via Hong Kong – has seen its owner profile become more consolidated and focused. It will be a key element in meeting the needs of China's burgeoning trade but traffic growth ought to outstrip the Chinese fleet's capacity growth. Additionally, Chinese shipowners will be looking to the cross-trades as crucial revenue earning opportunities. They are likely to turn to the newbuilding market – not necessarily centering on domestic yards. Elements among China's shipowners have listings on overseas stock markets – a remarkable development in itself – which could increase business transparency.

However, while Drewry is confident about China's potential in the longer term, there are some short term clouds. The reform process on which much depends is facing its stiffest test. Deflation has set in and problems of "shedding" workers from the struggling state owned enterprises are some way from being overcome. The Rubicon has not yet been crossed.

A number of China's industries are looking to remain protected against rising imports while China's shipowners have not embraced an "open house" policy. Policies for shipping crude oil and gas, for example, may tend towards

New Publications

Disbursements for Tankers 1999

THE New edition of INTERTANKO's popular publication *Disbursements for Tankers 1999* is now available.

Simultaneously, our Port Services on the web have been improved and expanded to include information on Reception Facilities for Tankers. This provides our web site subscribers with a unique service – access to 3,000 actual

"national projects" thereby putting Chinese shipowners in the position of preferred carrier.

CHINA: Opportunities and Challenges for World Shipping provides insight into China's recent history and future prospects – including an economic and industrial profile, an evaluation of the dry bulk, liquid and container sectors, an overview of the Chinese fleet and its operators and an appraisal of China's role in shipbuilding, shiprepair and ship demolition. It concludes with an analysis of China in the context of opportunities and prospects for world shipping.

CHINA: Opportunities and Challenges for World Shipping is published by Drewry Shipping Consultants Ltd. Individual copies of the Report are priced at £550 post-paid to anywhere in the world. For further information regarding **CHINA: Opportunities and Challenges for World Shipping** or any enquiries regarding the Report, please contact Paula Puszet at the address below.

Drewry Shipping Consultants Limited
Meridian Gate - South Quay, 213
Marsh Wall
London E14 9FJ, England
Tel: +44 (0) 171-538 0191
Fax: +44 (0) 171-987 9396
e-mail: enquiries@drewry.co.uk
internet: www.drewry.co.uk

The Institutional Position of Seaports

THE *Institutional Position of Seaports* deals with the logic and functioning of international seaport administration. This volume not only contains interesting reading for public and private port administrators and managers but can offer by its international comparisons relevant insights for the deregulation, privatisation, liberalisation and deconcentration of former government duties. Every seaport hosts different port activities in which public and private actors interact in changing relations. There is a permanent question of how responsibilities among public port administrators and the private users of the port have been divided and institutionally anchored.

The unique model of analysis as used in this research has been built up by the distinction in four different control relations between state and market. By means of this institutional model the

division of responsibilities for nautical control, port planning and port services can be determined. The reader can also learn via this model about the specific conditions that are needed to activate the learning capabilities of the different port activities.

Audience: This book is essential for everyone who is in a public or private managing or policy-making position in a seaport. It can also be of great help students in disciplines like maritime economics, strategic management, social geography and public administration. For example to make them more aware of the specific role divisions and mechanisms between state and market in international seaports.

Contents: Preface. Introduction to the Study. The Regulation of Responsi-

lities. The Nature of Seaports. The Port of Rotterdam. The Ports of Antwerp and Hamburg. Ports in the United States. Canada: The Port of Vancouver. Japan: The Port of Kobe. The Port of Hong Kong. The Port of Singapore. South Africa: The Port of Durban. The Learning Capacity of Seaports. Glossary. Summary. Bibliography. Index.

1999, 368 pp.

Hardbound, ISBN 0-7923-5979-8

Price: NLG 275.00/GBP97.00

Available at a reduced price of NLG 95.00 for course adoption when ordering six copies or more. Please contact Customer Services (service@wkap.nl) for further details.

The Americas

Operations Begin at Inner Port of Suape

ACCORDING to a letter of invitation dated 29 September 1999 addressed to the President of IAPH, from Eng. Sergio Kano, Director Presidente, Suape Complexo Industrial Portuário, Brazil, the Inner Port of Suape will be opening to national and international maritime traffic, with the starting of operations at Berth 1, on 7 October 1999.

For further information, please contact:

Sergio Kano, Director Presidente
de Suape Complexo Industrial
Portuário
Engenheiro Massangana, Km. 10,
Rodovia PE-60, Ipojuca-PE, Brazil
Tel: (081) 527-5000
Fax: (081) 527-4220

Georgia: Tonnage Gains For 12th Consecutive Year

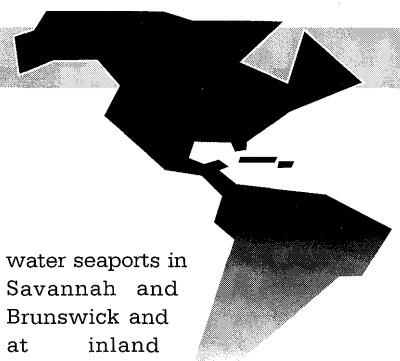
For the twelfth consecutive year, cargo handled via Georgia Ports Authority (GPA) facilities during Fiscal Year 1999 (ending June 30, 1999) surged to record levels.

The statewide total of 11,589,700 tons of cargo, handled through GPA deep-

water seaports in Savannah and Brunswick and at inland barge terminals in Bainbridge and Columbus, represents a 1.1 percent increase in tonnage over the previous fiscal year.

Significant growth in container and bulk traffic highlighted the productive year. Container business via the Port of Savannah represented 68.1% of all freight handled through GPA facilities and accounted for 53.4% of the total commerce handled statewide. General cargo handled in Savannah and Brunswick represented 23.2% of the statewide total and liquid/dry bulk cargo represented 23.4% of the grand total.

"The record setting performance in tough global markets during Fiscal Year '99 underscores the vitality of international trade in Georgia and throughout the southeastern United States," stated GPA Executive Director Doug J. Marchand. "During the past four months (March - June) we have seen the highest container tonnage months recorded for the Port of Savannah. Likewise, the TEU counts have been the highest recorded in consecutive



Georgia Ports Authority - Fiscal Year 1999 Results

	FY99	FY98	Difference	% Change
Container Tonnage	6,188,571	5,773,619	414,952	7.2%
General Cargo Tonnage	2,693,852	3,153,313	-459,461	-14.6%
Bulk Tonnage	2,707,277	2,532,783	174,494	6.9%
Total Tonnage	11,589,700	11,459,715	129,985	1.1%
TEU's	761,082	734,970	26,112	3.6%
Automobile Count	168,013	168,094	-81	0.0%
Vessel Count	2,038	2,019	19	0.9%

months. At the Port of Brunswick, more than 16,400 automobiles were handled via Colonel's Island Terminal during June. Although general cargo activity declined during FY99, we are projecting moderate increases in the coming months as the Asian market continues to strengthen."

A number of enhancements were initiated during fiscal year 1999 to enhance existing efficiencies and improve growth opportunities for both shippers and carriers in the future.

During Fiscal Year 1999, the Georgia Ports Authority began construction on the Port of Savannah's new James D. Mason Intermodal Container Transfer Facility (ICTF). Located on-terminal at the Garden City Terminal Containerport Facility, the Mason ICTF will be the only one of its kind on the U.S. East Coast. Spanning more than 150 acres, at final build-out the Mason ICTF will include 40,000 feet of lead track, 80 acres for container storage and marshaling and room for even more expansion. The first phase of the Mason ICTF is scheduled for completion in the Spring of 2000.

In December 1998, the Port of Savannah's seventh container berth (CB-7) became fully operational. Built and equipped at a cost of \$70 million, the 100 acre facility provides port users with 1,200 linear feet of berthing, 94 acres of paved storage, 1,887 parking slots, 9,556 TEU stacking slots, access to 31 interchange lanes and two new post-panamax cranes.

Development of Container Berth 8 (CB-8) is in the advanced planning stages. Construction of the 83 acre facility with 1,700 feet of berthing is at a point where customers can directly influence the strategic elements of the terminal design, giving port users the opportunity to tailor the terminal to meet their specific needs. With the addition of CB-8, Garden City Terminal's Containerport will approach 1,100 acres and provide port users with more than 9,400 linear feet of continu-

ous berthing.

To further strengthen customer service and efficiency, Savannah's Ocean Terminal is expanding to meet the needs of its customers. Planned expansion includes the construction of a 150,000 square foot transit shed and the addition of 700 feet of berthing space.

During FY99, the Georgia Ports Authority also contracted with Navis LLC, the world's leading supplier of container handling software, to install the latest generation of technology to optimize the Authority's container terminal operations.

As the volume of cargo moving through the Port of Savannah escalates and the ships carrying that cargo grow even larger, plans call for Savannah's channel to be deepened from its present depth of 42 feet up to 48 feet at mean low water in order to accommodate the next generation of deep draft vessels.

Enhancements to the Port of Brunswick's Colonel's Island Agri-Bulk Facility during FY99 included the installation of a new pneumatic unloading system to enable the discharge of bulk commodities from vessels and barges more expeditiously. The system, complemented with the construction of a fully enclosed dockside conveying system, provides for the movement of cargo via vessel, direct to either trucks, rail cars or all three operations - without product handling.

Construction is now underway for additional paved storage for the handling of automobiles and machinery at the Colonel's Island Terminal. Now in the design stage, a third Ro/Ro berth will further enhance the terminal's loading and discharge capabilities. Three world-class processors, Atlantic Vehicle Processors, Benicia Industries, Inc. and International Auto Processing, Inc. service the processing needs for more than 20 major automotive and machinery manufacturers.

Plans are also underway for the deepening of the Brunswick harbor from its

present depth of 30 feet to 36 feet at mean low water. In addition to harbor deepening, the construction of a new, fixed-span bridge is slated for completion in the Spring of 2001. The new Sidney Lanier Bridge will provide a vertical clearance of 185 feet at mean high water and a horizontal clearance of 1,038 feet.

New steamship services were also announced during FY99. In March 1999, Grand Alliance members Hapag-Lloyd, NYK, OOCL and P&O Nedlloyd announced the selection of the Port of Savannah as its U.S. South Atlantic hub, consolidating the AEX and PAX services. The AEX Service (Asia - East Coast North America Express Service), linking the Far East to the East Coast of North America via the Suez Canal, joined the PAX (Pacific-Atlantic Express Service) at the Port of Savannah's Garden City Terminal. Gulf Africa Line, a joint venture between Maritime Carrier Shipping and Dannebrog Rederi, made its debut in Savannah in January 1999. Gulf Africa Line selected the Port of Savannah for a service expansion between the U.S. East Coast and South Africa and calls on Georgia Ports Authority's dedicated general cargo facility, Ocean Terminal. Maersk, Sealand and CSAV announced expanded container services to the East Coast of South America via Savannah's Garden City Containerport Terminal by virtue of their joint service agreement with Columbus Line and P&O/Nedlloyd. During FY99, Delmas expanded services between Savannah and Africa.

Georgia's public and private marine terminal operations directly or indirectly support 80,100 jobs, are responsible for \$1.8 billion in wages, generate \$23 billion in revenue and account for \$585 million in state and local taxes each year. The Georgia Ports Authority operates modern and efficient deepwater facilities in Savannah and Brunswick, Georgia and provides value added services to facilitate international trade. Inland barge terminals operated under the auspices of the Georgia Ports Authority are located in Bainbridge and Columbus, Georgia.

For additional information, please contact Patricia S. Reese, manager of communications & external affairs, (preese@gaports.com) or Diane L. Strickland, manager of port relations, (dstrickland@gaports.com), at (912) 964-3855 (800-342-8012/fax 912-964-3921). Visit the GPA website at www.gaports.com

Air Quality Improvement Campaign at Long Beach

THE Port of Long Beach is launching an air quality improvement campaign, asking steamship lines to help reduce fallout from smoke stack emissions. Steamship lines are being reminded to minimize these emissions by limiting stack "blows," properly maintaining their combustion equipment, and following proper operational procedures. Steamship lines also are being encouraged to switch to cleaner-burning alternative fuels while in port.

Smokestack discharges can violate regional air quality rules. Discharges of any air contaminants that cause injury, annoyance, detriment to the public or adversely affect business or property are also prohibited. Port Harbor Patrol officers are being trained to properly notify the AQMD of any illegal discharges, and discharge reports will be filed with the AQMD starting Oct. 1. (TIE LINES)

Long Beach: Lease of Storage Shed to Aimcor

THE Long Beach Board of Harbor Commissioners on Monday, Sept. 27 approved a lease for a vacated, covered storage shed to Aimcor, the port's largest coke exporter. Aimcor plans to repair and renovate the shed for its use by next June. The covered shed would have a capacity of 85,000 tons and enable Aimcor to abandon an existing uncovered storage site.

The lease is part of a comprehensive program the Port of Long Beach and its tenants have undertaken to comply with recently enacted air quality rules aimed at minimizing petroleum coke dust. The multimillion-dollar program includes eliminating uncovered storage, increasing street sweeping, replacing a ship loader, renovating conveyors and truck washers, and paving and reconstructing a railyard.

"We're committed to minimizing petroleum coke dust coming from the port," said commission President Roy E. Hearrean. "We're confident we will meet or beat the various deadlines under the new air quality rules."

The first deadline under the South Coast Air Quality Management District's Amended Rule 1158 was met last month when the private operators of the port's

coke exporting terminal on Pier G initiated a fixed schedule to sweep the roads and paved areas in and around their facilities with vacuum sweeping trucks. Before the rule those areas were swept weekly, but now they are swept every four hours or after every 100 trucks pass over them.

The port is ordering its own vacuum sweeper so it can sweep the streets between the coke exporting terminals and the entrance to the port, off the Long Beach (710) Freeway. Delivery of the \$130,000 sweeper is expected by the end of the year. The port's sweeping program exceeds the Rule 1158 requirements.

Port engineers are working with a consultant to prepare specifications and designs so they can request proposals for a new, more modern ship loader needed to accommodate today's larger vessels while minimizing the escape of coke dust. It would replace an existing ship loader. The Rule 1158 deadline to install the new ship loader is June 11, 2004, but port officials expect to complete the ship loader project far sooner. The port is also working closely with its tenants to identify and implement other measures required under Rule 1158.

In addition, the port's engineers are redesigning an unpaved railyard at its coke- and coal-handling terminal on Pier G so that it can be kept cleaner. Rebuilding the railyard should be completed by June 11, 2001, in compliance with Rule 1158.

The port will also enclose all conveyors transporting petroleum coke and upgrade truck washers, including adding water misting and side spraying on the washers that are currently without these features.

The new air quality rules also require local oil refineries and trucking companies to implement control measures, including the covering of open-top trucks by the end of the year.

Petroleum coke is a by-product of oil refining. Coke particles resemble coal, and is used as a fuel and as a raw material in metal smelting throughout the world, including South America, Asia, Europe and the United States.

Since the AQMD's original Rule 1158 was enacted in 1983, the port has spent \$50.2 million on its Pier G bulk-loading complex for such improvements as enclosed storage sheds, truck washes and a storm water recycling system.

Long Beach: Container Trade Records Broken

STRONG back-to-school and early holiday shipments fueled a record-breaking month in

August at the Port of Long Beach – the nation's busiest container port. The equivalent of 399,305 TEUs was shipped through the port, a 7.2 percent increase over August 1998. August's volume of inbound and out-

Port of Long Beach Container Traffic (TEUs*)

	Loaded		Total Loaded	Empties	Total Containers
	Inbound	Outbound			
Aug-99	214,709	80,581	295,290	104,015	399,305
Aug-98	195,413	77,416	272,829	99,786	372,615
% change	9.9%	4.1%	8.2%	4.2%	7.2%
Jan-99	169,397	77,676	247,073	72,239	319,312
Feb-99	172,482	80,000	252,482	71,647	324,129
Mar-99	171,913	88,699	260,612	87,362	347,974
Apr-99	181,575	77,040	258,615	81,071	339,686
May-99	205,640	87,553	293,193	101,274	394,467
June-99	194,410	78,962	273,372	100,603	373,975
July-99	188,586	74,155	262,741	85,220	347,961
Aug-99	214,709	80,581	295,290	104,015	399,305
Year-to-date	1,498,712	644,666	2,143,378	703,431	2,846,809
98-to-date	1,358,044	650,874	2,008,918	663,774	2,672,692
% change	10.4%	-1.0%	6.7%	6.0%	6.5%

*TEUs: 20-foot equivalent units or 20-foot-long cargo container

bound containers, loaded and empty, was the port's highest monthly total ever – topping the previous high of 394,467 TEUs recorded in May.

August's surge follows a year-over-year decline in July – the port's first such decline in three years. "It looks like the July numbers were an anomaly," said Don Wylie, the port's managing director of maritime services. "We're back where we expected to be, with moderate growth in exports and real strong imports through the end of the year."

In August, the number of export containers increased 4.1 percent to 80,581 TEUs, still well below the levels of two years ago before the onset of the Asian flu. But exports have increased year-over-year in five of the last eight months, suggesting that the worst of the Asian financial crisis may be over. Leading exports at the port include machinery and such raw materials as plastics, cotton and recycled

paper and metal.

In August, the port also broke its monthly records for import containers, total loaded containers, and empty containers. The number of import containers climbed 9.9 percent to 214,709 TEUs, indicating that American consumer spending remains very strong. Long Beach is a leading gateway for Asia-made consumer goods such as clothing, toys, shoes, home furnishings and electronic products. Propelled by back-to-school and holiday shipments of consumer merchandise, the port usually handles its peak volumes during the summer and fall.

The total number of loaded inbound and outbound containers rose in August by 8.2 percent to 295,200 TEUs. With the widening gap between imports and exports, the number of empties – nearly all of them headed back to Asia – increased 4.2 percent to 104,015 TEUs.

million, followed by industrial equipment, electrical and electronic equipment, paper, heavy machinery, frozen fish, aluminum, and measuring and scientific instruments.

The value of the Port's total two-way trade remained flat in 1998, rising slightly to \$34 billion from \$33.6 billion in 1997. Because heavy bulk commodities were among the hardest-hit exports, the total volume of cargo through the Port declined to 13.5 million metric tons in 1998 from 16.4 million metric tons in 1997. As reported earlier this year, the Port's containerized cargo volume rose 4.6 percent to an all-time record of 1.54 million TEUs last year.

Other notable changes in 1998 included the ranking of the Port's top 10 trading partners. Japan and China remained the Port's largest trading partners respectively, but Taiwan rose to third, trading places with South Korea, which moved down a notch to number four. Hong Kong remained in fifth place, followed by the Philippines, Thailand, Malaysia, Indonesia and Singapore. In 1997, Hong Kong was followed by Thailand, Indonesia, Malaysia, Singapore and the Philippines respectively.

LA Seamen's Church Elects Board Members

AT its annual meeting on September 22, The Seamen's Church Institute of Los Angeles, an institution of the Episcopal Church of the Diocese of Los Angeles, elected new members and officers to serve on its Board of Directors.

New members elected were Angie Birkenbach, Chief Wharfinger for the Port of Los Angeles, Guy Fox, Chairman of the Board of Global Transportation Services, Inc., Dr. William Crookston, USC School of Business Administration, and Derek Steel, recently retired from MGA Electronics Inc.

Elected as President was Hal Hilliard, Marketing Manager for The Port of Long Beach, First Vice President, Chuck Naylor, a local attorney specializing in Maritime Law, Secretary, Scott Duncan, a Marine Surveyor for J.A. Jacobsen & Associates and Treasurer, Mark Green, President of E-Corp.

First established in the San Pedro community in 1881, the Seamen's Church Institute of Los Angeles continues to meet the challenges of the every changing needs of the seafaring community. Plans to establish a Seafarers' Center in Cyberspace were

one of the many topics of discussion at the Board meeting.

Seattle: Asia Crisis Ups Imports, Cuts Exports

THE Asian economic crisis lifted foreign waterborne imports through the Port of Seattle last year, but also took a bite out of Northwest exports to Asia, according to the 1998 *Foreign Waterborne Trade Report* released on August 31 by the Port.

The value of foreign imports at the Port of Seattle rose 15 percent to \$26.9 billion from \$23.3 billion in 1997. The value of foreign exports fell 32 percent to \$7.1 billion from \$10.3 billion in 1997. Many of the exports handled by the Port of Seattle originate in the Pacific Northwest.

The fastest-rising imports through the Port included aircraft parts and sub-assemblies, which doubled to \$977 million from \$489 million, followed by audio equipment, telecommunications, sound and recording equipment, toys, video games, wearing apparel and office machines.

The hardest-hit exports handled included Midwest grain, which fell by more than half to \$160 million from \$466

To Help Seattle Get Ready for Bigger Ships

WHAT: The official signing of the Project Cooperation Agreement between the U.S. Army Corps of Engineers and the Port of Seattle to dredge the northern-most 3,000 feet of the East Waterway of the Duwamish River. The \$7.5 million project will dredge the East Waterway to a depth of 51 feet within 25 feet of the Port of Seattle's marine terminals.

WHAT IT MEANS: The Army Corps' agreement will help make several of the Port's container berths deep enough to accommodate the next generation of container ships the size of the 6,000-TEU *Regina Maersk*.

WHO: Joseph Westphal, Assistant Secretary of the Army for Civil Works; Steve Sewell, Managing Director, Marine Division, Port of Seattle; Col. James Rigsby, District Engineer, Seattle District, U.S. Army Corps of Engineers; and Members of the Washington state Congressional Delegation.

WHEN: 2:15 p.m. (EST), Wednesday, Sept. 15, 1999.

WHERE: 562 Dirksen Senate Office Building, Constitution Avenue between First and Second streets N.E., Washington, D.C.

CONTACT: Imbert Matthee at 206-728-3091; paper: 206-994-0473.

Seattle: For More Efficient Flow of Commerce

AS part of an initial effort to address harbor efficiency issues raised by owner-operator truck drivers in the Puget Sound area this summer, the Port of Seattle has been convening a series of meetings with the steamship lines, terminal operators, railroads, trucking companies, organized labor and independent truck owner-operators.

The goal of the Port is to help streamline the transportation infrastructure in the harbor for the long term so the entire region can benefit from a more efficient flow of waterborne commerce and an environment can be created in which all parties can prosper.

These efforts could eventually lead to spreading out peak volumes, continual operations and flexible gate hours, improved information exchange between trucking companies and gate operators, the introduction of new technology, separate trouble shooting truck lanes and an increased use of on-dock rail facilities.

A similar dialogue with trucking companies and shipping terminal operators is being initiated by the Port of Tacoma.

In the meantime, several actions have been taken to relieve congestion and improve transportation productivity on the waterfront:

- On Friday, Sept. 17, Union Pacific opened two additional lanes at the main gate of its ARGO facility as in-gate lanes and began providing access to truck drivers at 7 a.m., or an hour earlier than before. These steps are expected to cut wait times in half and improve overall productivity at the facility. On Oct. 1, UP will introduce the use of hand-held computers to speed up gate processing times. UP also plans to invest in a new gate structure in the near future.
- On Monday, Sept. 20, Stevedoring Services of America extended the operating hours at the main gate of Terminal 18, one of the busiest container terminals in the harbor. SSA began providing access for most

cargo at 7 a.m., an hour earlier than before. In addition, SSA will operate its gates at lunch time if container volumes warrant it.

- Hanjin Shipping Ltd. at Terminal 46, another one of the Port's busiest container facilities is expected to announce soon it will provide truckers with gate access at 7 a.m., also an hour earlier to reduce truck queues.
- Operators at terminals 5, 25 and 30 will continue to provide early access to truck drivers. The schedules are 7 a.m. to 6 p.m. (M-F) at Terminal 5, 7 a.m. to 5 p.m. (Monday, Thursday and Friday) at Terminal 25 and 7 a.m. to 5 p.m. (M-F) at Terminal 30.

Independent Truckers Back to Work at Seattle

The group of owner-operators who stopped offering their trucking services on the Seattle waterfront two weeks before are back at work on September 1. Their return follows an announcement by organizers from Teamsters Local 174 on August 31 to call for a suspension of the truckers' job action. Union leaders said it was a good-faith gesture allowing the Port and the shipping industry to try to address issues raised by the owner-operators during the past two weeks.

The action, which Local 174 said began as a show of solidarity for striking truckers in Vancouver, B.C., and sought better pay and union recognition, won the owner-operators up to 20 percent raises from some trucking companies, according to the union.

Port officials said the container terminals were fully operational during the job action with everyone else in the waterfront work force on the job including many owner-operators, members of the Teamsters and members of the International Longshore and Warehouse Union. The job action staged by some of the owner-operators caused only intermittent disruptions at some of the terminals.

Port officials said they welcome the truckers' move to suspend their job action.

"The owner-operators and Teamsters Local 174 have articulated some very important issues that require long-term solutions," said Tom Tierney, the Port's chief administrative officer. "Their announcement today to step back gives

the Port and other players in the shipping industry the opportunity to try to address these concerns and seek lasting solutions."

Tierney said the transportation economy on the Seattle waterfront has evolved over many years and defies a quick fix. But it is in everyone's interest to find ways to streamline the harbor's infrastructure so commerce can move efficiently and owner-operators can enhance their earnings. The owner-operators are paid per container movement.

Tierney said the Port this week is convening a meeting of the trucking companies during the first week of September and is pursuing a dialogue with the other players in the shipping industry, including the steamship lines, terminal operators and railways.

Port Commission President Patricia Davis said the Port has an interest in promoting efficiency and good working relationships in the harbor. "We have a role to play in facilitating the discussions among the parties. The truckers have raised issues that are important to be addressed."

Tacoma: Grand Opening Of Terminal for Hyundai

MORE than 350 special guests attended the grand opening celebration of Washington United Terminals at the Port of Tacoma on Thursday, July 22. The terminal is the new home of Hyundai Merchant Marine's container operations in the Pacific Northwest.

Port of Tacoma Commission President Clare Petrich, who spoke at the opening ceremony, said the event was a "celebration of the beginning of a new era of growth at the Port of Tacoma."

The 60-acre terminal is expandable to 100 acres. It features a two-berth, 2,000-foot-long pier, four post-Panamax container cranes, and a 20-acre dockside intermodal rail yard for direct transfer of containers between ship and rail.

"This terminal has the most efficient ship-to-rail intermodal operation on the West Coast," said Mike Lingerfelt, Vice President of Washington United Terminals, Inc., a subsidiary of Hyundai. The intermodal rail yard features a total of 8,400 feet of loading and unloading track, and a 28 doublestack car capacity that is expandable to 42 cars.

The terminal marks the first time that Hyundai has leased a terminal in the

United States. "I'm sure this terminal will be a cornerstone in the history of Hyundai Merchant Marine," said Y.W. Yoon, senior executive vice president, Hyundai Merchant Marine.

Hyundai signed a 30-year terminal lease with the Port on April 1, 1997. The terminal, which was completed months ahead of schedule and under budget, is the largest container terminal development in the history of the Port.

The terminal also marks a financial partnership between the Port and Hyundai. While the Port built the termi-

nal, Hyundai purchased the four container cranes as well as a variety of container handling equipment for the yard. The total combined investment on the project was about \$100 million.

Various developments in recent years, including environmental cleanup work and deepening of the Blair Waterway, as well as the removal of the Blair Bridge in 1997, helped lay the groundwork for the new terminal. The Port is also exploring terminal development opportunities on additional lands on the upper Blair Waterway.

and rotate at 12,615 revolutions a minute. Each compressor was 24m long, 10m wide and 12.20m high.

Road transport from the Dresser works to the quayside in Le Havre was organised by CNMT and the stevedoring by CNMP, with trans-Inter S.A. coordinating the entire operation, including unloading on to a barge in Abu Dhabi and transport to the oil site.

(Port of Le Havre)

Africa/Europe

Le Havre: 2 Compressors Loaded for Abu Dhabi

THE *Lena*, a freighter built in 1998 and operated by a German company, Altes Land, specialises in carrying heavy lifts, which she hoists aboard with her own two 275 and 320t derricks. She was recently tied up at the Jean Reinhart Wharf, Le Havre, with J.G. Rogliano as agents, to take on two gas compression modules for the Zakum oilfield in one of the United Arab Emirates, Abu Dhabi. The load was broken up into 53 separate

parcels, weighing a total of 603 tonnes.

Each module was principally composed of a gas turbine and a high pressure compressor of the new generation of Datum compressors manufactured at the Dresser-Rand works in Le Havre.

They attain a pressure of 430 bars

Port of Rotterdam: 100th Recipient of Green Award

THE *Al Shuhadaa*, a crude oil carrier owned by the Kuwait Oil Tanker Company, on September 4 became the 100th recipient of a Green Award certificate from the Port of Rotterdam.

The purpose of Green Awards is to stimulate environmentally-responsive behavior on the part of vessel owners, vessels and their crews. Some 35 ports in the Netherlands, Spain, South Africa, Portugal and the United Kingdom (Shetland Islands) grant port dues discounts to "Green Award ships" with a discount in port dues. The certificate confers other benefits such as cheaper and/or faster services provided by pilots, boatmen, and tugs.

Until recently, the certificate has been awarded only to oil tankers of over 20,000 tons dwt. From the year 2000 onwards, however, eligibility will be extended to bulk cargo vessels.

Al Shuhadaa is a 285,116 dwt VLCC (very large crude carrier), sails under the flag of Kuwait and calls at Rotterdam four or five times a year. The certificate will allow the company discounts of around 100,000 Dutch guilders (US\$480,000) a year in Rotterdam. *Al Shuhadaa* is the third ship of the Kuwait Oil Tanker Company to receive the Green Award.

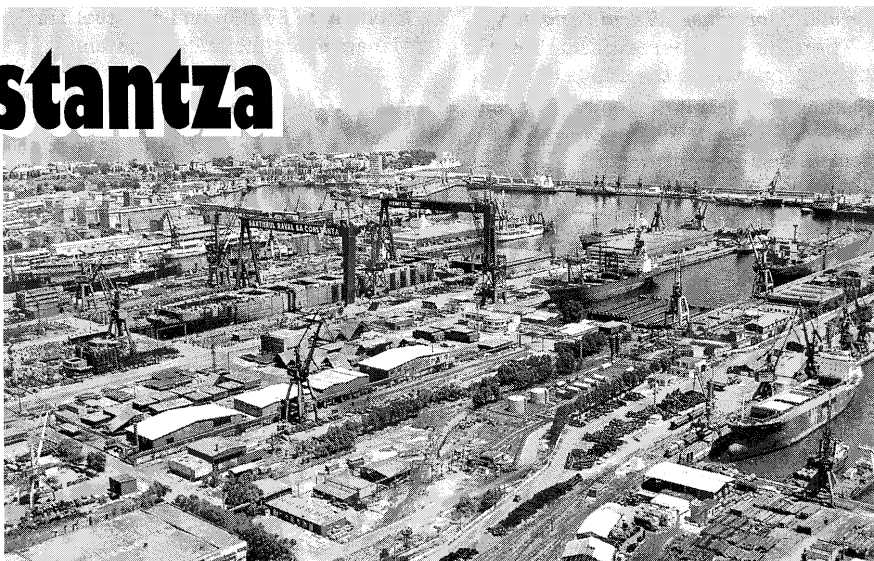
(AAPA ADVISORY)



Compressors being loaded on to the "Lena"

Port of Constantza

The Eastern Gateway of Europe



THE Port of Constantza is situated on the western coast of the Black Sea, 179nM from Bosphorus Strait and 85nM from Sulina branch, through which the Danube flows into the sea. Constantza is the main port of Romania and the largest port of the Black Sea, covering a surface of 3,600ha and having 133 berths with a quay length of 28.5km. The port complex consists of the old port northwards and the new port southwards, offering a total yearly handling capacity of 85 mil.t.

Located at the cross-roads of the trade routes linking the developed countries of Western Europe and the emerging markets of Central Europe with the suppliers of raw materials from the CIS, Central Asia and Transcaucasus, the Port of Constantza is building its role as a logistic node and the "Eastern Gateway of Europe".

Compared with other ports in the region, Constantza offers many advantages:

- multi-purpose port with modern facilities and sufficient depth (21m at the entrance and 17.6m along the quay) to accommodate the largest vessels passing through the Suez Canal;
- direct access to the Rhine - Main - Danube Corridor through the Danube-Black Sea Canal which has its entrance right inside the South port, thus providing a shorter and therefore cheaper transport way towards Central Europe, compared with the route using the Northern Europe ports;
- good connections with all modes of transport: railway, road, river, airway and pipes, thus offering favourable prospects for the development of the multimodal transportation;
- privileged access to the domestic market and easy access to the Central Europe markets;
- large space for expansion;
- Ro-Ro and Ferry-boat terminals

suitable for the development of short sea shipping serving the Black Sea and the Danube riparian countries;

- a Free Trade Zone is offering financial incentives such as: exemption from Customs duties and profit taxes.

Dry bulk facilities

Terminals for ores, coal, coke

Constantza has the largest facilities in the south-east of Europe for the handling and storage of iron ore, bauxite, coal and coke. There are 10 berths with depth between 8.0m and 17.6m for the accommodation of seagoing vessels and 3 berths for the handling of barges in view of transportation via the Danube-Black Sea Canal. The discharging of cargo from seagoing vessels is performed with 2 unloaders of 50t (another one is planned to be installed in 1999) and 6 unloaders of 20t. The loading into barges is performed with 4 loaders with capacities between 1,200 and 2,000t/h. There are also quay cranes, floating cranes, conveyers, stacker reclaimers for the stockpile. The total storage capacity is of 4.5 mil.t.

Terminal for chemical products, fertilisers, urea, phosphate, apatite

There are nine berths with depth between 6.4m and 10.7m, equipped with two unloaders of 25 t for the discharging of phosphate and apatite, two loaders with a handling rate of 200t/h, various quay cranes. The storage capacity is of 30,000t for phosphate and 25,000t for urea.

Terminal for building materials

Another nine berths with depth

between 8.0m and 11.6m are available for the handling of cement and building materials. The handling is performed with 2 unloaders of 400t/h, a floating loader for the transshipment of the bulk cement from barges into vessels, quay cranes. The storage capacity for the bulk cement is 40,000t.

Terminals for cereals

There are six berths with depth between 8.0m and 10.8m for the handling of cereals in the North port. The loading/unloading is performed with five pneumatic elevators of 150t/h, two elevators of 250t/h, two floating elevators of 300t/h, five quay cranes, underground and aerial conveyers, three silos of 30,000t each are available as well.

In the South port there is one berth having a depth of 14.5m, equipped with a pneumatic installation with a maximum capacity of 800t/h and a silo of 100,000t.

Liquid bulk facilities

Oil terminal

There are six berths with depth between 11.4m and 12.9m and one berth of 17.60m depth which allows the accommodation of tankers up to 165,000dwt. The yearly handling capacity is of 24 mil.t for crude oil and 12 mil.t of processed products, available storage capacity 1.7 mil.t. There are pipes which connect the port with the main refineries in the country.

New liquefied petroleum gas terminal

A new liquefied petroleum gas terminal with a yearly capacity of 600,000t is in the final stage of the project, American and Romanian capital being involved in.

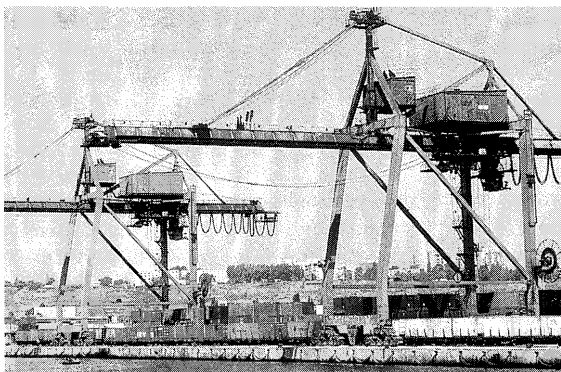
Terminal for edible oil and molasses

There is one berth, 113m length, 7.40m depth where the edible oil is discharged by pipes into 7 tanks of 25,000t each. Molasses is discharged directly from vessels into rail wagons.

General cargo facilities

Container terminal i

The container terminal has two berths, 467m length, 9.70m depth and a total surface of 114,000sq. m. The ship-to-shore handling is performed with 2 gantry cranes of 40t and another one is planned to start operations in 1999.



New container terminal

A new container terminal with a handling capacity of 337,000 TEUs is foreseen to start operations by the year 2002. The terminal will have two berths, 625m length, 14.5m depth, a container stacking yard of 90,000 sq.m, a container freight station of 5,000 sq.m. The ship-to-shore handling will be performed with three gantry cranes of 50t.

Ro-Ro terminal

The Ro-Ro terminal in the South port has one berth, 214m length, 12.9m depth, two parkings, each with a capacity of 120 vehicles (12m long).

Cars terminals

There are two car terminals, one in the North Port and the other in the South Port. The first has 2 berths and the second another two berths with a parking of 4ha.

Ferryboat terminal

The ferry boat has one berth, 255m length, 12.4m depth, providing a yearly handling capacity of 1mil.t. It is served by two ships able to carry 70 railcars or 40 trucks.

Management

In order to improve the management of the port two important projects are going to be implemented in the next two years, namely a Management

Information System and a Vessel Traffic Management Information System.

Mangalia and Midia

On the Romanian coast of the Black Sea, there are another two satellite ports, Mangalia and Midia.

Mangalia is situated 38km southwards of Constantza. It has 400m of operative quays with a depth between 8.5m and 9.0m. The port is equipped for an yearly traffic of 400,000t with possibilities for expansion up to 1 mil. tons per year. Existing storage space: 4,300sqm covered, 20,000 sq.m open.

Midia is situated 25km northwards of Constantza and it was built to serve the adjacent industrial and petrochemical areas. The operative quay is 340m length with depth alongside of 7.0-7.5m. The current handling capacity is of 200,000t per year, possible to be expanded up to 2 mil. tons/year. Storage space available: 2,160 sq.m covered and 10,780 open. The Port of Midia has direct access to the Danube-Black Sea Canal via its branch Poarta Alba - Midia Navodari.

Port Authority:

National Company MARITIME PORTS ADMINISTRATION CONSTANTZA S.A.

Incinta Port, Gara Maritima, 8700 Constantza ROMANIA

Telephone: +40-41-611540

Facsimile: +40-41- 619512

Key Personnel:

Name: Capt. Laurentiu Mironescu

Position: General Manager/

President of Board of Administration



Shipyard

Port of Tilbury: Hyundai Berth Under Construction

WORK is now underway on the building of the new roll-on roll-off riverside berth at Tilbury which will be part of the multi-million pound import facility for Hyundai Car (UK) Ltd.

It is being built alongside the Tilbury Landing Stage, but incorporated in the facility is the reclamation of the Tidal Basin, part of which will be used as a holding car park for cars discharged from the riverside berth.

This is the latest in a series of multi-million pound developments that have transformed the Port in the last five years.

Hyundai Car (UK) actually moved from Sheerness to Tilbury in March and has set up its operations close to the ramp leading up from the Landing Stage.

This is the hub of the company's import facility, including offices, dewatering plant, and pre-delivery inspection facilities.

Ships are at present being discharged outside of the dock at the Northfleet Hope terminal as far as larger vessels are concerned and inside for smaller ships.

But the new riverside berth is due for completion by the end of the year.

Early September saw one of the bigger ships handled at Northfleet Hope, discharging 3,000 cars.

The Tilbury facility will handle up to 30,000 cars a year.

Hyundai's quality assurance manager, Mick Brockbank, who was in on the project from the beginning, said the company was convinced now that it had made the right move.

The operation at Sheerness was vital in the growth of the company's business, but it needed extra space to allow it to control every aspect of the import operation in order to give even better service to dealers and customers.

"We chose the site for our operations carefully because it was ideally placed as far as the berth was concerned and the railhead which we envisage we will be making use of in future," he said.

"We believe that by March next year we will have the ideal facility - deep-water access, 30 acres of compound, a railhead nearby and access to excellent road facilities.

"There are not many ports in this country with deepwater access, probably only four or five, and we are fortunate that in Tilbury we have what we want with all the advantages.



A recent aerial shot of the Port of Tilbury showing the area in the foreground, alongside the Landing Stage, where the new riverside berth is being built - and with reclamation work going on behind at the Tidal Basin

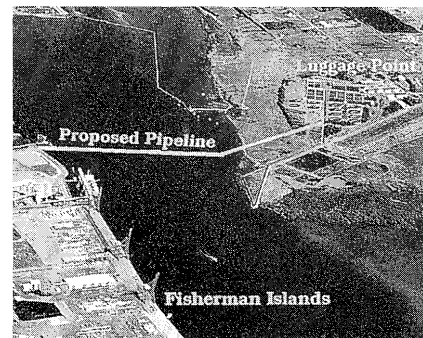
"We are delighted with the cooperation we have had with the Port of Tilbury. We have now made a long-term commitment to the Port."

The construction work for the riverside berth is being undertaken by Christiani & Nielsen Limited, a company involved with many major construction works in the south east.

These include the construction of all the waterside foundations to Phase One of the Canary Wharf development, the building of a chill store out into the river

at Sheerness, the demolition and removal of Phoenix Wharf jetty on the Thames, the construction of the Heron Quays 150 metre footbridge across West India Dock and the tunnel strengthening project to the Bakerloo and Northern Line tunnels for London Underground.

Until the Tidal Basin car park is ready, Hyundai's cars are being parked at various locations around the dock - giving this part of Tilbury the look, along with the thousands of Ford cars at its terminal, of a giant car park.



The pipeline from Fisherman Islands to Luggage Point.

opment at the port."

He said as part of the new infrastructure, a sewerage pumping station would be built at Fisherman Islands for the transfer of waste to Luggage Point, with water being returned to the port precinct for a range of industrial uses.

"Access to water is an essential ingredient for any industrial operation and, with the new pipeline in place, we will be able to guarantee an unlimited resource for the future.

"When you combine basic necessities, such as water, with other infrastructure including an intermodal transport service and immediate access to shipping services, then the port becomes an increasingly attractive location," Mr Mulligan said.

Expressions of interest are currently being sought from other organisations and industries that may wish to use the sewerage line; an initiative that will also result in cost sharing.

Brisbane Water is currently drawing up the specifications for the pipeline, with tenders for the design and construction of the pipeline expected to be issued shortly. (Brisbane Portrait)

Asia/Oceania

Brisbane City, Port Agree On New Sewerage Line

THE Port of Brisbane Corporation and Brisbane City Council have agreed to jointly fund and build a new cross-river sewerage line. This will address increased demand for water supply and sewerage disposal on Fisherman Islands and Whyte Island and relieve pressure on domestic services in adjacent bayside suburbs.

Port of Brisbane Corporation Chief Executive Officer Mr Graham Mulligan, said the pipeline between Fisherman Islands and Luggage Point would meet



Port of Brisbane Corporation CEO, Graham Mulligan

the future industrial and domestic needs of the expanding port precinct, and would take approximately one year to construct.

"Recently we launched the Port of Brisbane Business Park as part of a strategy to attract a range of local, national and international commercial and industrial operations to the port precinct.

"In addition, the Australia Trade-Coast joint initiative between the Corporation, Brisbane Airport Corporation, Department of State Development and the Office of Economic Development, will further underpin future devel-

Brisbane: 1st Environment Performance Report

THE Port of Brisbane Corporation has recently made public its first Environmental Performance Report.

The report outlines the significant progress the corporation has achieved in improving its environmental management of the port. Not only does the Port of Brisbane Corporation now have a fully comprehensive Environmental Management System, but it has been audited against world best practice, achieving a result seldom seen in a baseline audit.

In addition to providing a snapshot of the corporation's environmental perfor-

mance over the past twelve months, the report sets the scene for the year ahead.

For further information: please contact Peter Mathews, General Manager Corporate Affairs, Tel.: 3258 4782, or Dr. Rick Morton, Manager Environment on Tel.: 3258 4756, or visit our website on www.portbris.com.au.

Objectives of the Environmental Management Programme

Water Management: To reduce the impact which the Corporation's activities, services and lessees have on the water quality of the Brisbane River and Moreton Bay, and to reduce the use of water resources by Corporation activities

Land Management: To ensure that all existing Corporation land which has the potential to be contaminated is identified, no new land is contaminated, and land is managed in a manner which does not result in erosion

Air Management: To reduce the impact which the Corporation's activities have on air quality and air emissions (gaseous emissions, odours, dust, greenhouse gases etc.)

Noise Management: To reduce the external noise impact which the Corporation's activities have on sensitive receptors

Conservation, Public Amenity and Strategic Planning: To ensure that conservation and public amenity issues are incorporated into all strategic planning issues in order to reduce the impact which the Corporation's activities have on conservation of the natural resources and amenity values of the area.

Waste Management: To reduce the amount of natural resource usage by the port and to manage waste in accordance with the principles of legislative compliance, cleaner production, and the waste hierarchy

Risk Management: To reduce the likelihood of spills and non-routine procedures, and provide for emergencies through the proper management and storage of all hazardous materials, the appropriate management of high risk activities, and the provision of appropriate emergency procedures

Communication: To improve the communication of environmental aspects and information throughout the Corporation, and to improve communication and interaction with external parties. To raise the profile of the Corporation to that of an environmentally responsible corporate citizen at the leading edge of environmental awareness and responsibility

Legislative Compliance: To identify environmental legislation, the requirements of this legislation and the statutory approvals which are required, and ensure that a system exists whereby the requirements of this legislation are met and corrective actions are taken where there are breaches of legislation

Roles and Responsibilities: To identify the structure of the Corporation and the environmental responsibilities of each person in the Corporation.

Training and Awareness: To identify the environmental training and awareness requirements of the Corporation and provide or make available the appropriate courses and inductions to meet the Corporation's requirements

Systems Management: To ensure development of all of the systems which need to be in place for the proper functioning of the Environmental Management System

* * *

Risk assessments have been undertaken for many of the major activities carried out by the Corporation and a plan has been prepared to ensure all environmental risks are assessed.

The results of the risk assessments are clearly outlined in a register that is available to all employees. Objectives, targets and actions resulting from the risk assessment are outlined in an Environmental Management Programme, which is designed to ensure that we meet the principles outlined in our Environmental Policy.

We have implemented a procedure which assesses all new developments for their potential to result in environmental harm, as well as the need for specific management measures, both in terms of construction and operation.

Accountability

A key focus of our Environmental Management System is to ensure that employees have an understanding of how their activities can affect our environment. The actions from the Environmental Management Programme are outlined in an Action List which states who will do what and by when.

Environmental staff routinely update the Action List and report progress against the objectives and targets of the Environmental Management Programme to the Corporation's Safety, Quality and Environment Board Committee every six weeks.

Continuous Improvement

By routinely updating the Environ-

mental Management Programme, we are able to continuously improve environmental performance.

As we address the significant environmental issues, new ones are discovered and addressed.

Jiang Praises PSA's Dalian Container Terminal

CHINA'S President Jiang Zemin has recently praised PSA Corporation's Dalian Container Terminal (DCT) for its efficiency in container handling and its contribution to the growth of Dalian's container throughput.

President Jiang's presence at DCT underlines the terminal's significance to China's port industry. Upon his arrival at DCT, President Jiang and his delegation were received by Mr Yuan Fuxiu, Port Director, Dalian Port Authority; Mr Yuan Shuwei, Party Secretary to the Port of Dalian Authority; and Mr Ho Yap Kuan, General Manager, Dalian Container Terminal. President Jiang was given a tour of DCT, accompanied by Mr Bo Xilai, Mayor of the Dalian Municipal Government and Mr Yu Xuexiang, Party Secretary to the Dalian Municipal Government.

The Chinese leader was given an overview of DCT's developments and the overall master plan of the Dayaowan port development by Port Director Yuan. Mr Ho Yap Kuan (who is seconded to DCT from PSA Corporation) shared with President Jiang, the similarities between the two cities of Dalian and Singapore. Mr Ho also conveyed the message that the PSA team is committed to giving of its best to the partnership with DCT.

Said President Jiang, "I am pleased and impressed with the modern facilities and efficient operations at Dalian Container Terminal. Dalian, given its natural harbour and strategic location, has tremendous potential for more and greater development." President Jiang highlighted that both China and Singapore shared many cultural and economic similarities and advantages. In addition, the Chinese President also expressed his concern on how the PSA team was adapting to the new working and living environment.

Mr Ho Yap Kuan, General Manager, DCT, said, "We are extremely honoured by President Jiang's visit to DCT and to have the privilege of showing His Excellency the developments at our terminal. DCT attributes our progress and

achievements to the strong support and understanding of the Chinese Government, Dalian Municipal Government, shipping lines and the commitment of our staff. DCT is poised to be North China's most successful container hub port in the region and in the future, one of China's most important container terminals. By working closely with our partners in Dalian, we assure customers of fast, efficient and reliable services that are of world-class standard."

Dalian Port is currently the 7th largest container port in China and the main gateway to China's Northeastern provinces, including Liaoning, Jilin, Heilongjiang and Inner Mongolia. DCT is often hailed as one of China's most efficient and advanced container hub ports.

Since its inauguration in 1996, DCT has registered strong growth in container and cargo throughput, fuelled by the strong economic surge in China.

During the first half of 1999, DCT handled 286,000 TEUs, 30% more than the volume handled in the same period last year. In 1998, DCT handled 475,000 TEUs, a growth of 16% over 1997. Besides boosting container volumes and service levels, DCT has also built up its shipping network, and established an inter-modal rail network which connects Dalian to Northeast China, among other achievements.

PSA Corporation Ltd set up its first overseas Representative Office in Dalian in March 1998 to enhance the administration of its growing interests in China. PSA's many interests in Dalian include the Dalian BHR Consultancy Services Co. Ltd, PSA's first wholly-owned overseas subsidiary for the development of computer software and systems for PSA and the Chinese market; and the redevelopment project at the eastern port area of Dalian Port (Donggang).

to Y2K and its potential consequences. Continuous management and contact with external parties (TPC, CPC, pilot office...) will be maintained to monitor the relevant status of their Y2K management, in order to mitigate the threat of Y2K disruptions.

Logistics Park to Be Built Adjacent to Kaohsiung Port

It is our national policy to promote Taiwan as an Asia-Pacific Regional Operations Center. At the same time, the government is actively seeking membership of the World Trade Organization (WTO). Furthermore, to meet the demand for free port, free trade, and free shipping in the future, Taiwan is speeding up its pace of internationalization and economical liberalization. Under such circumstances, great opportunities for logistics and warehousing opportunities are presented in Taiwan, and demands for better logistics and warehousing environment and services become greater. In response to these demands the most extensive multi-functional logistics park in Asia will be established adjacent to the Port of Kaohsiung.

Port of Kaohsiung

The international Port of Kaohsiung is the largest port in Taiwan. It is located on the southwest coast and is a major intersection for shipping through the Bashi Channel and the Taiwan Straits. It features a broad area, vast hinterland, clement weather, and a long developed sand bar forming a natural breakwater for the harbor.

The Port's shipping network extends to all major harbors of the world. Its annual handling capacity is about 98 million tons, which accounts for two-thirds of Taiwan's import and export tonnage. The total loading and unloading volume in 1998 was 328 million tons. In the same year, the significant container throughput of 6,271,053 TEU made the Port the third largest container port in the world. To meet the increasing demands for logistics, construction commenced on a fifth container terminal with 8 berths in 1989, and will be completed in 1999.

Convenient Traffic Network

Taiwan Sugar Logistics Park (TSLP) is located in the Chen Kon District of Kaohsiung not too far from Kaohsiung International Airport and the Port of

Kaohsiung Harbor Bureau Y2K Contingency Plan

To solve Y2K problem, Kaohsiung Harbor Bureau set up a project team headed by the Chief Engineer. This task force drew up a contingency plan to make sure the normal operation of the Bureau, and schedule comprehensive exercises as preparation for the emergency management of the Bureau. The port operation IT and non-IT systems passed the test of Y2K by June 30, 1999.

Information System

By August 15, 1998, the modification and testing of mainframe hardware and operating system, as well as bay, warehouse, and stevedoring application systems were all completed. SUN server of the Ministry of Transportation and Communications was upgraded on November 26, 1998. E-mail server was upgraded in February 1999. A total of 153 units of 386 and 486 PCs has been replaced and a total of 520 units of 586 or above systems are all Y2K compliant. Web server is free from Y2K problem due to the use of 586 systems. The maintenance of Microsoft Software was completed by the original supplier to ensure normal operation.

External Connection Interface

Network management was complet-

ed on March 10, 1999 and the overall testing was completed on March 25, 1999. EDI system was completed by June 30, 1999. Network connection testing with the TRADE Net will be continued.

Y2K Management of Suppliers

Kaohsiung Harbor Bureau has informed the International Vessel Association and trade unions to notify their members to facilitate the management of Y2K. In March and April, requests had also been sent to stevedoring companies, CPC (Chinese Petroleum Corporation), and TPC (Taiwan Power Company) for reports on their Y2K management status and emergency management plans.

Safety of Vessels

Port operating facilities and equipment inspection and testing were completed on March 31, 1999, which included container cranes, substations, vessel GPS, static ground weight, tunnel traffic control system, Makung Building, monitoring system, elevator, fax machines, and switchboard systems. Management and testing of the static ground weight system was completed by June 30, 1999.

Future Tasks

Though we are well-prepared for Y2K, we will continue to pay close attention

Kaohsiung, and is also close to the national island highway. Building a logistics center in the area is a natural outcome of all these transportation advantages. By the same token, the Port of Kaohsiung will certainly become an important component of Asia-Pacific Operations Center.

Potential

The Port of Kaohsiung is planned as a sea transportation center in the whole project. In accordance with the govern-

ment's policy, the Port of Kaohsiung will continue to enhance its quality of service and operational efficiency for the benefit of its shipping and industrial customers. Taiwan Sugar Logistics Park is located side by side with this large international port, its convenient and efficient environment makes TSLP competitive in its field and brings greater economical benefits. (For more information please visit the website <http://www.cpl.com.tw>)

Millennium". This included papers on "Legal Challenges", "The Role of ESCAP" and "Risk Management".

Through APP over the last 25 years, considerable benefits have been seen in the Pacific ports. The changes in that time have been profound – corporatisation, privatisation, increased number of containers, bigger ships, etc.

Global Shipping in the last decade has involved three major changes: –

- Lower costs:
- More frequent ships;
- Global carriages.

Shipping companies are achieving these goals by building bigger ships (some can now carry over 6,000 containers each), smarter high tech logistics, and joining together in global alliances.

These factors are impacting on Pacific shipping and will continue to do so in the next decade, and the new millennium.

A feature of what is likely, is the need for one or two hub ports in the region. A hub port would have to be able to handle large container ships (say 4,000 containers each) and to do so very efficiently. While the country in which a hub port exist enjoys the transshipment of containers, it does not mean less cargo for the other island countries. Indeed Dr. Rahmatullah of ESCAP clearly states, and other delegates agree, that those other ports would be more likely to prosper if there was one or two hub ports in the region. This stems from the capability to attract the best global shipping alliances into the region and service their cost effectively at these hubs. Smaller feeder shipping services would then service the non-hub ports. These feeder ports do not have to face the same demand for capital to build the infrastructure needed at the hub ports.

The APP Conference was a great success and the ports of the region are looking forward to the challenges of the new millennium. The next App Conference will be held in Auckland in September 2000.

APP Is Preparing For New Millennium

THE Association of Pacific Ports was set up in 1978 to foster the development of island ports through the exchange of knowledge, experience and information through member ports. All island countries in the Pacific Region are members of the Association. We also have members from Australia and New Zealand.

The Association meets annually at different ports in the Region. This year the Annual Conference was held in Nuku'alofa, Tonga 13-17 September 1999.

The Maritime & Ports Authority of Fiji has been the Secretariat of the Association since 1978.

The Silver Jubilee of the Association of Pacific Ports (APP) Conference held in Nuku'alofa, Tonga 13-17 September was attended by 47 delegates of 13 nations. This forum is very successful in enabling the ports of all the regions to share ideas on how to better service trade in the future.

Over 90% of trade is by sea, making port efficiency a key ingredient in helping island nations get their exports competitively to world markets.

The Conference this year had a theme of "Port performance in the new



Front Row: Anauli. Fesili (Samoa), Amelia Tu'inukuafu (Tonga), Viti Whippy (Fiji), Penina Rabuka (Fiji), Hon. Mailefihi Tuku'aho (Chairman, Tonga), Kolinio Meo (Fiji), Viliame Leqa (Fiji), Ma'ata Sakiti (Fiji), Jackson Warihiru (Solomons), Jone Cakau (Fiji). **Second:** Jioji Taholo (Fiji), Barton Phillips (Australia), Christophe Ajonc (Tahiti), Leo Zussino (Australia), Peni Pulu (Fiji), Tu'itupou Fotu (Tonga), Seru Buliruarua (Fiji), Robbie Kaivepa (PNG), William Barile (Solomons), Herbert Hazelman (Fiji), Sepuloni Faupula (Tonga), Champak Kapadia (Fiji), William Hawley (Pohnpei), Ngenomea Kabui (Solomons). **Third:** Peter Jordan (Australia), Moses Rahari (Solomons), Maika Nawaqaliva (Fiji), Vilikesa Qalilawa (Fiji), Peter Murrell (Australia), Charles Domnick (Marshall), Timothy Bonga (PNG), Epeli Matata (Fiji), Oscar Mendoza (Marshall), Samuela Tukuafu (Tonga), Susaia Akillino (Pohnpei), Emosi Varea (Fiji), Ilo Koko (PNG).

Events Commemorating Yokohama Port Opening

IN commemoration of the 140th anniversary of Yokohama Port and the 10th anniversary of the opening of the Yokohama Maritime Museum, the exhibition under the theme "The Story of the Port of Yokohama 1859 - 1999" is scheduled to take place in the museum from 9 October to 23 November 1999 (the museum closes Monday, 11 October; Tuesday, 12 October; and Thursday, 4 November). The exhibition is designed to introduce visitors a history of the Port of Yokohama focussing on the evolution of Yokohama to become a leading international trade port city from a small fishing village 140 years ago.

On the afternoon of Friday, 12 November, a commemorating lecture will be given by Mr. Yukio Fujiki, President of the Yokohama Stevedores Association and Director-General of the Kitami Port Research Institute, on the subject "The men who have supported the Port of Yokohama" at the Nihon-maru Training Center which is located next to the Yokohama Maritime Museum.

For further information on the exhibition and the lecture, please contact:

The Yokohama Maritime Museum
Minato Mirai 2-1-1, Nishi-ku,
Yokohama 220-0012
Tel: 045-221-0280 (The Nihon-maru
Foundation)

PSA Corporation Launches Another Venture in China

ENCOURAGED by the successful partnership and co-operation with Port of Dalian Authority (PDA) in the Dalian Container Terminal project, PSA Corporation has embarked on another major project jointly with PDA.

Dalian Marina Centre Development Co., Ltd. (DMCD) is a 50:50 joint venture company between PSA China (Ltd) and Dalian Port Investment & Development Co., Ltd., a subsidiary of PDA. The joint venture company will be responsible for the re-development of about 100 hectares of land currently used for port operations. It will prepare the concept plan, and attract investors and developers to participate in transforming the site into a vibrant waterfront with commercial,

recreational and residential facilities and functions. The waterfront site has a coastline of about 6 km and is situated in a strategic location, adjacent to Dalian's financial and commercial hub. Some five-star hotels like Shangri-La are within walking distance.

Dalian is located at the southern tip of Liaoning Province. It is an important coastal city in North China with a deep natural harbour and a thriving tourism industry. Dalian is renowned to be one of the most beautiful and cleanest cities in China.

DMCD was officially launched by Dr. Yeo Ning Hong, Chairman of PSA Corporation and Mr. Yuan Fuxiu, Director of PDA in Dalian today (2 Sept 99). At the Opening Ceremony, Dr. Yeo said, "Dalian is a beautiful young city with a very vibrant economy. I am sure that with the redevelopment and transformation of the old port area into a commercial and recreational centre, near to Dalian's beautiful city centre, Dalian's attractiveness will be further enhanced. Visitors from all parts of China and internationally, will be drawn to Dalian's scenic charm." He added, "PSA's continual investments in Dalian signifies our confidence and commitment to participate in the economic development and well-being of Dalian."

Director Yuan, said at the ceremony, "The close co-operation between PSA and PDA over the last three years has seen DCT achieve rapid and encouraging development. I firmly believe that with the same spirit of commitment and co-operation between PSA and PDA, DMCD will also attain similar achievement."

Following the Opening Ceremony, DMCD signed an MOU with the Consortium led by PSA China, to conduct a feasibility study on projects for the 1st phase of re-development.

Sines Terminal PSA's 9th Overseas Project

PSA Corporation has been awarded the Concession Agreement to develop, manage and operate Sines Container Terminal (XXI) in Portugal by the Government of Portugal. This is PSA's 9th overseas project. The agreement was signed on 28 September 99 in Sines, Portugal by Mr Eugenio Fialho Borralho, President, Administracao do Porto de Sines SA (Administration of the Port of Sines)

and Dr Yeo Ning Hong, Chairman, PSA Corporation Ltd.

H.E. Joao Cravinho, Portugal's Minister for Infrastructure, Planning and Territorial Administration, and Dr John Chen, Singapore's Minister of State for Communications & Information Technology witnessed the signing of this Agreement.

The event follows the signing of the Agreement of Principles for Sines Container Terminal between PSA and APS in June this year.

Under the Concession Agreement, PSA will develop, operate and manage Sines Container Terminal (XXI) for an initial period of 30 years. It will be developed as a deep-sea container terminal, with a total quay length of about 940 metres and 17 metres draft. The terminal will be developed in phases according to the needs of its customers in the maritime and shipping industry. Phase One of the project will see the construction of a total quay length of about 320 metres, targeted for completion in about 3 to 4 years' time. When fully completed, Sines Container Terminal (XXI) will be able to handle a total throughput of about 1.4 million TEUs.

Besides developing the infrastructure for Sines Container Terminal (XXI), PSA will also use its resources and expertise in Information Technology to facilitate excellent container terminal operations and service levels at Sines Container Terminal (XXI), so that shipping lines can enjoy the same fast, flexible and reliable value-added services that they have come to expect when calling at PSA's terminals whether in Singapore or overseas.

"The Port of Sines commands a strategic position in the Atlantic Region, hence leading to the development of a multimodal corridor under the Multimodal network Plan of Portugal-Spain/Europe. APS will do everything to create an ambient and conducive environment for the harmonious development of Sines Container Terminal (XXI)," said Mr Borralho, President of APS.

Dr Yeo Ning Hong, Chairman, PSA Corporation Ltd, said, "PSA Corporation is honoured to be given the opportunity to develop Sines Container Terminal (XXI), which has the hallmarks of a great seaport. In addition to being blessed with a strategic geographical location, Sines is also equipped with excellent land and rail infrastructure which connects it to Portugal's rich hinterland and

beyond. Sines Container Terminal (XXI) is therefore the natural choice for shipping lines plying the region.

"PSA will share its experience, technological and operational know-how in container-handling operations with our Portuguese partners. Together, we will transform Sines into a world-class container terminal and regional transshipment hub for Western Europe in the 21st Century."

Background

The Port of Sines, situated within Portugal's commercial and industrial hinterland, is located about 170 km South of Lisbon. Sines Container Terminal (XXI)'s strategic location, at the crossroads of the North-South and East-West Atlantic shipping routes, enables it to serve as a transshipment hub for the region.

The Port of Sines, which started operations as a bulk port in 1978, is able to accommodate very large container vessels which require deep drafts. As Portugal's leading bulk port, Sines presently has 4 terminals and handles more than 22 million tonnes of solid and liquid bulk cargoes, such as crude oil, petrochemical and refined products, bulk cargo and coal.

New Site off Changi For Dumping of Earth

THE Maritime and Port Authority of Singapore (MPA) will be designating a site of about 70 hectares for the dumping of excavated earth such as marine clay and silt from both public and private development projects with effect from 1 August 1999. This is to create more dumping grounds to prevent indiscriminate and illegal dumping of the excavated earth on land and in the sea.

The new dumping site has a capacity of close to 2 million cubic metres, which provides for dumping operations to be carried out over a period of two to three years. The MPA will manage and supervise the dumping operations to ensure that the site is fully utilised.

Dumping operations will be carried out by barges as the site is off shore. All the authorised barges transporting the excavated earth to the new dumping sites are fitted with satellite-based tracking devices linked to the MPA's Dumping Management System. The tracking devices identify the barges

and their positions by the Differential Global Positioning System, and monitor their draughts to ensure that there is no indiscriminate or illegal dumping, and that dumping is carried out at the designated location.

Land-based development project contractors can use this site without having to obtain the permission of the MPA. However, they should continue to use the current Pasir Ris Staging Ground, which is managed by the Building and Construction Authority (BCA), for the transfer of the excavated earth from the lorries onto the authorised barges. With effect from 1 August 1999, the contractors need only apply to the BCA for the use of the loading facilities at the Pasir Ris Staging Ground.

Bidding to Reopen for C3 Terminal Operator

AN additional feasibility study for the selection of C3 terminal operator at LCP (Laem Chabang Port) was completed. Bid for the lease of the terminal to private terminal operator will be reopened soon after PAT gets approval from the Cabinet.

The study conforms to the current National Economic And Social Development Plan. It confirms that the economic feasibility of LCP development in Phase 2 will help Thailand recover from the economic recession. The project also favours financial feasibility for PAT and private investors.

Construction of LCP initial stage of Phase 2 Development has progressed by more than 50% ahead of schedule. The C3 terminal is the first terminal scheduled to be completed in early 2000, and is expected to be operational one year later.

Cruise Ships Start Regular Calls at LCP

THE Star Group, the world's fifth largest cruise ship operators, will begin regular calls twice a week at LCP with the arrival of the *Superstar Leo* and 2,000 passengers on September 5.

The group is expected to bring in ships around 230 calls with 90% of European passengers and 10% from

Asia to Thailand, says Mr. Peraphon Triwatana, Managing Director of LCP. The country will earn over one billion baht within three years, and LCP will gain revenue in the region of 70 million baht. "But our main aims is to promote tourism, to bring in foreign exchange," affirmed the Managing Director.

He added that LCP has adjusted its development plan for cruise ship facilities. The berth for passenger ships (C0) will be replaced by the longer A1 berth in Phase 1 which will be able to serve today's larger cruise ships.

The adjustment complies with the IMO regulations on evacuation in case of emergency.

The Star Cruise Group will invest in the development of an A1 berth which includes extending the length from 320 m. to 365 m. and deepening the berthing area from 6.5 m. to 14 m. MSL.

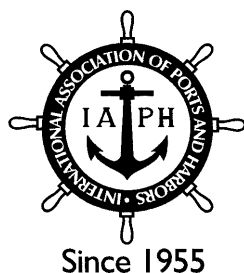
PAT Completes Y2K Contingency Plans

PAT's Director General, Mr. Thavorn Chunnanond disclosed that PAT has completed its contingency plans to deal with the Y2K problems. An ad-hoc centre has been set up to ensure that the port will be able to take effective action and provide efficient services in case of emergency.

During July and August, PAT arranged training courses and drills to provide knowledge and experiences to people involved with the plan. The plan was 100% tested and reviewed to confirm its effectiveness in late August.

"We're fully aware that Y2K failures will affect our services, so we've taken steps to counter the problems in advance," said the Director. "From today, we can be sure that we'll overcome the critical period."

Prior to this, PAT adjusted the IT hardware, System software and Application software to the versions specially designed to circumvent Y2K problems at both ports. Embedded systems in hydrographic survey system and the telephone networks are also being improved.



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IAPH supports all efforts to prevent the illegal trafficking of drugs!

Drug trafficking through seaports is a global problem requiring vigilance and the co-operation of the world's ports community.

The world's ports must accept their responsibility to enhance security measures and improve communications with the parties concerned by working closely together so as to prevent the illegal movement of drugs through ports.

The *International Association of Ports and Harbors* (IAPH) fully supports the efforts and initiatives of the World Customs Organization (WCO) in their fight against the illegal trafficking of drugs through ports.



IAPH will meet in Montreal, Canada
from 19 to 26 May 2001
at its 22nd World Ports Conference

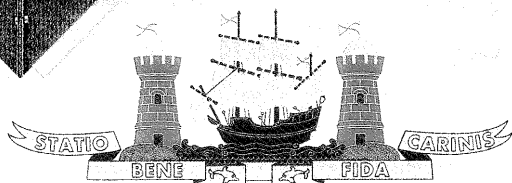
Conference Theme: **"2001, A Maritime Odyssey - 2001, Une odysée maritime"**
Conference Host: **Montreal Port Authority**

IAPH Head Office

Kono Building
1-23-9 Nishi Shimbashi
Minato-ku
Tokyo 105-0003 Japan

Tel: +81-3-3591-4261
Fax: +81-3-3580-0364
E-mail: iaph@msn.com
Web site: <http://www.iaph.or.jp>

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