

CONTAINER AND GENERAL CARGO FLEET DEVELOPMENT, SUPPLY/DEMAND PATTERNS AND WORLD CONTAINER PORT DEVELOPMENT

As of January 1st, 2005, the fully cellular container fleet stood at 3,220 ships with 99.2 mill dwt equal to 7.2 mill TEU total and the general cargo fleet comprised 16,263 ships with 95.3 mill dwt equal to 1.9 mill TEU.

Together these fleet segments had, in terms of dwt tonnage, a share of 21.9 per cent of the total world merchant fleet (ships of 300 gt and over). The world merchant fleet had a total capacity of 9.4 mill TEU,

whereby at the beginning of 2005, 76.5 per cent of this capacity was attributable to the fully cellular container fleet compared with TEU/shares of 49.7 per cent in 1990 and 68.7 per cent in 2001.

Besides supply and demand patterns the ISL market analysis presents assumptions on future containerised trade developments and includes information on container traffic for the leading world ports.

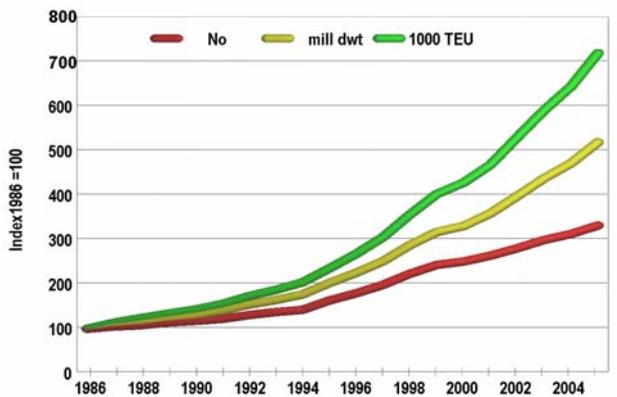
THE WORLD CONTAINER FLEET

Tonnage supply 2005

In the period of 2001-2005, the TEU-capacity of the world container fleet grew per year on average by 11.3 per cent, whereas the number of the container vessels rose by 5.9 per cent and the deadweight tonnage by 9.4 per cent.

During the year 2004, the fully cellular container fleet grew by 11.6 per cent (based on TEU). Compared with 1995, the fully cellular container fleet has more than doubled its TEU capacity (+ 205 per cent), whereby the disproportionate increase of the TEU capacity indicates the trend towards larger container ships.

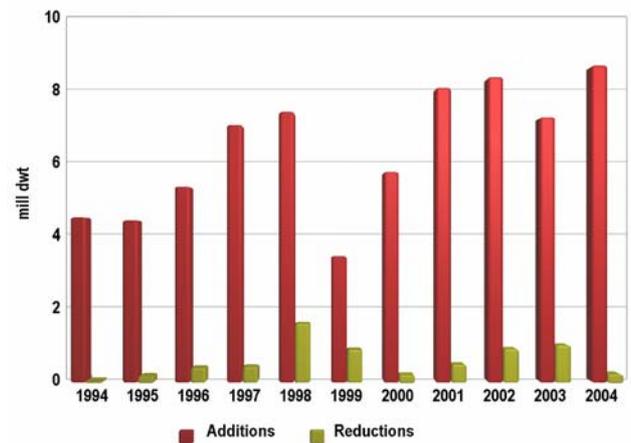
Fig. 1: Container fleet development as of January 1st, 1986 – 2005 (Index 1986 = 100)



In the period of 2000-2004, 850 container ships with 32.4 mill dwt and 2.5 mill TEU were added to the trading fleet. In the same period only 176 container ships with 3.5 mill dwt were reported as broken-up.

During 2004, 183 container ships with a capacity of 8.5 mill dwt and 0.67 mill TEU respectively, were added to the fleet. Compared with previous years these new entries had an extremely high average capacity, namely 3,653 TEU. 20 fully cellular ships were in sizes of 7,000 TEU and above (compared with 7 ships during 2003).

Fig. 2: Container fleet additions and reductions during 1994 – 2004 (in mill dwt)¹



Ships added to the world container fleet during 2004 represent 5.7 per cent of all fully cellular container ships, 8.6 per cent of the deadweight tonnage and 9.3 per cent of the TEU-capacity of the active container fleet at the beginning of 2004.

In the period of 2001-2005, the TEU-capacity of fully cellular container ships up to 1999 TEU increased on average by 3.4 per cent, whereas the size classes 2,000-3,999 TEU and 4,000-4,999 TEU grew by 5.4 per cent and 12.2 per cent respectively. A record high was realised by ships in sizes above 6,000 TEU. Their TEU-capacity increased in the period 2001-2005 on average by 43.7 per cent yearly.

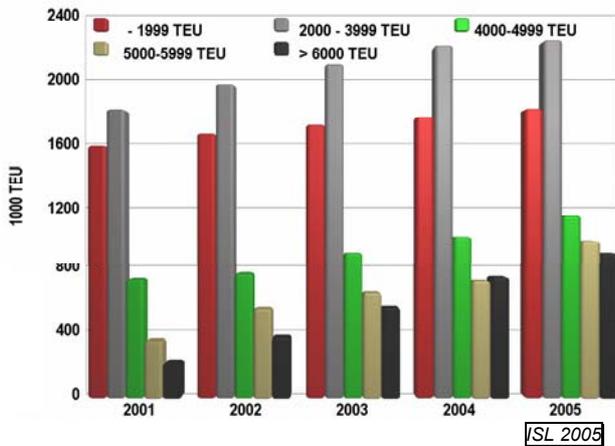
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¹ Additions - newbuildings entering the fleet refer to the fleet data of the following year. Reductions - broken-up tonnage refers to the fleet data of the respective year

World seaborne container trade and port traffic

Thus, looking at the size development of container ships there is, as in previous years, a marked tendency towards larger units. At the beginning of 2005, 578 fully cellular container ships, equal to a share of 42.9 per cent of the total TEU-capacity of the world cellular container fleet, were attributable to sizes above 4,000 TEU. Moreover 134 container ships with approx. 924,000 TEU were attributable to size categories of 6,000 TEU and over, other 229 ships in this size category stood in the order book of January 1st, 2005. The largest container ship in service is the "Colombo Express" with a capacity of 8,600 TEU and a tonnage of 104,000 dwt².

Fig. 3: Container fleet development by TEU-size classes as of January 1st, 2001 – 2005



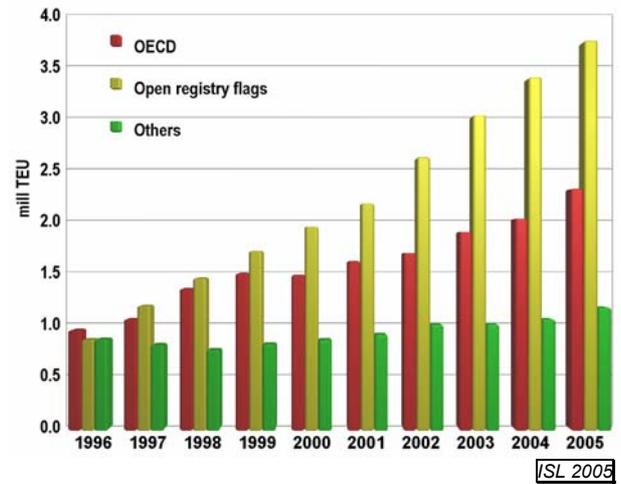
Container fleet by ownership patterns and ship operators 2005

At the beginning of 2005, the container tonnage (dwt) registered for OECD countries had a share of 32.0 per cent of the world fully cellular container fleet, whereas in 1991 their share stood at 44.3 per cent (ships of 1000 gt and over).

More than one third of the container tonnage are registered under the open registry flags Panama and Liberia. At the beginning of 2005, 609 container ships with 21.9 mill dwt and 1.6 mill TEU were registered in Panama which is equal 22.0 per cent of the total TEU capacity of the world fully cellular container fleet. Liberia ranks on the second place with 400 vessels having a capacity of 1.0 mill TEU representing 14.6 per cent of the total TEU capacity of the world fully cellular container fleet.

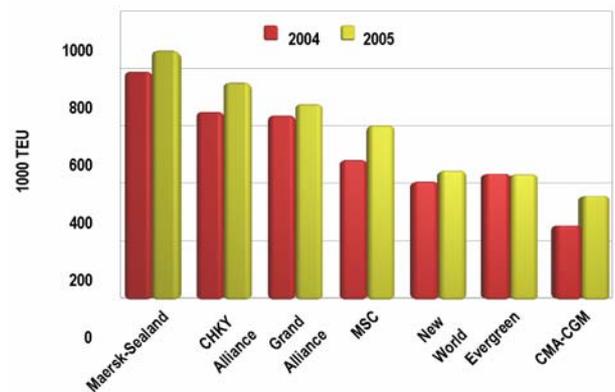
At the beginning of 2005, the German registered fully cellular container fleet stood at 0.6 mill TEU (2004: 0.46 mill TEU) and making it the third largest flag in world container fleet ranking.

Fig. 4: Container fleet development by country groups as of January 1st, 1996-2005 (ships of 1000 gt and over)



As far as container ship operators are concerned, the container shipping industry has gone through a period of massive concentration which is not necessarily reflected in the above ownership analysis.

Fig. 5: TEU-capacity of top ranking containership operators as of February 2004 and 2005



ISL based MDS Transmodal

Only 15 operators control approx. 65 per cent of all fully cellular container ships and 75 per cent of the global TEU capacity. The largest is Maersk-Sealand, operating a capacity of 849,000 TEU equal to 12.8 per cent of the total world fleet capacity. Nine of the top 15 operators are involved in global alliances with major parts of their fleets. As shown in Fig. 5, about 28.7 per cent of the total container capacity is employed in three alliances (CHKY alliance, Grand Alliance and New World Alliance). Together with the big three "independent carriers", namely Maersk-Sealand, MSC and Evergreen, these "Global Players" have a market share of 57 per cent in the total TEU-capacity in world container shipping.

² By the end of this year four ships with a capacity of 9,200 TEU will come into service.

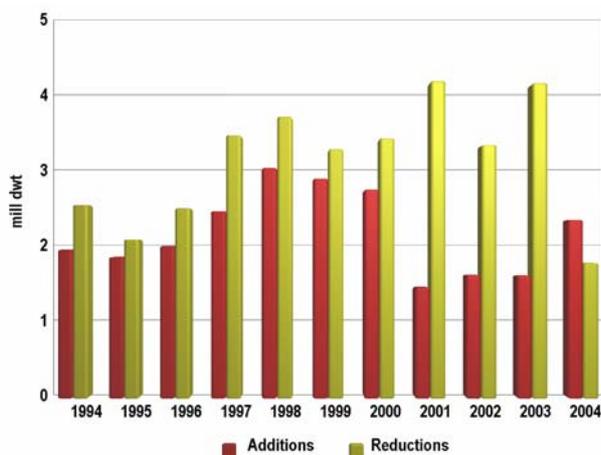
WORLD GENERAL CARGO FLEET

Tonnage supply 2005

As of January 1st 2005, the world general cargo fleet consisted of 16,263 ships with 95.3 mill dwt and 2.0 mill TEU. In the period of 2001 – 2005 the world general cargo fleet in terms of dwt decreased by 1.0 per cent yearly, whereas, in terms of TEU, the fleet increased by 1.1 per cent yearly.

Deployment of general cargo ships is related towards specific commodities and/or trades (short sea shipping). Their operating niches range between the liner industry and the market for smaller bulk carriers.

Fig. 6: General cargo fleet – additions and reductions 1994 – 2004 (in mill dwt)³



ISL 2005

The general cargo fleet is composed of various sub-types having their own momentum in the market. General cargo single-deck ships increased their tonnage shares on the total general cargo fleet from 42.2 per cent in 2001 to 45.8 per cent at the beginning of 2005. In the same period, multi deckers dwt-share decreased from 33.1 per cent to 28.0 per cent in 2005.

During the period of 2000-2004, 1,871 general cargo ships with 16.7 mill dwt were reported to be broken-up, thereof 880 multi deckers with a tonnage of 10.2 mill dwt. During the same period 1,164 general cargo ships (new buildings and other entries) with 9.6 mill dwt were added to the fleet. In terms of tonnage these new entries were attributable to single-deck ships (64.5 per cent), special ships (13.4 per cent) and ro-ro cargo ships (14.5 per cent). With respect to tonnage, Single-deck ships grew steadily throughout the last five years.

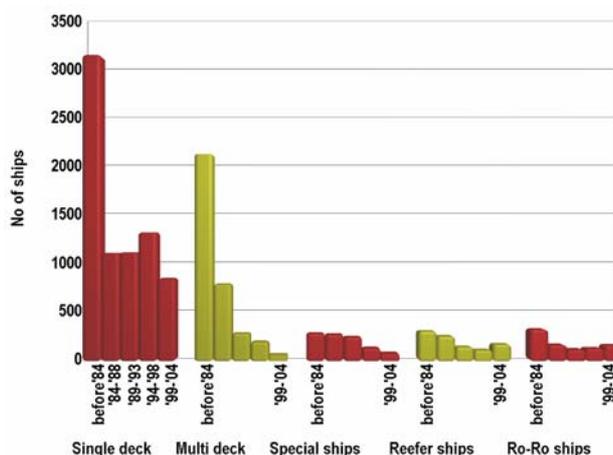
Looking at the year 2004, fleet additions (newbuildings and other entries) exceeded demolitions by 0.6 mill dwt. As a result, the general cargo fleet

³ see footnote 1

increased, by 0.2 per cent comparing tonnage figures as of January 1st, 2004 and 2005.

At the beginning of 2005, general cargo ships had an average age of 22.4 years. Nearly 71 per cent of all general cargo ships, which equals to two thirds of the total deadweight tonnage, were already built before 1990, whereby the age profile for the various sub-types of the general cargo fleet differs. Over aging of the general cargo fleet is especially true for the multi-deck fleet. As of January 1st, 2005, multi-deckers had an average age of 26.8 years, besides cargo/passenger ships (average age 32.5) the oldest fleet segment. Thus, future scrapping activities in the field of general cargo shipping will largely be concentrated on this fleet segment.

Fig. 7: General cargo fleet by ship type and division of age as of January 1st, 2005 (No of ships)



ISL 2005

Assuming that ships of the total general cargo fleet have an average age of approx. 32.9 years⁴ before they are scrapped, the demolition potential for the current general cargo fleet had at least a volume of about 3000 ships with 8.8 mill dwt, thereof 1.8 mill dwt single - and 4.6 mill dwt multi deck ships. This broken-up potential represents more than 18.6 per cent of the current fleet.

The world general cargo fleet is largely composed of ships in smaller size classes. At the beginning of 2005, 10,462 ships were attributable to sizes up to 4,999 dwt. Figures on the world general cargo fleet, summarised in Table 7, indicate that only 5.1 per cent of all general cargo ships, equal to 25.9 per cent of the total general cargo tonnage, had sizes of 20,000 dwt and above. The order book shows a different size distribution. At the beginning of 2005, about 39.5 per cent of the total cargo tonnage on order were attributable to this size segment (+ 20,000 dwt).

⁴ Assumption based on ISL broken-up tonnage analysis for the year 2003.

General cargo and container fleet, supply/demand, ports

Ownership patterns 2005

As of January 1st, 2005, 37.9 mill dwt equal to 41.7 per cent of the total general cargo tonnage were registered for the top ten open registry flags (ships of 1,000 gt and over). Compared with last year's tonnage figures, these ten flags decreased their tonnage by 0.9 per cent.

Within the period of 2001 – 2005, the top ten open registry flags lost about 5.3 mill dwt (- 12.2 per cent), in particular the new EU members Cyprus and Malta lost combined 4.0 mill dwt in the mentioned period. These losses are broken-up tonnage as well as flag changes in equal shares.

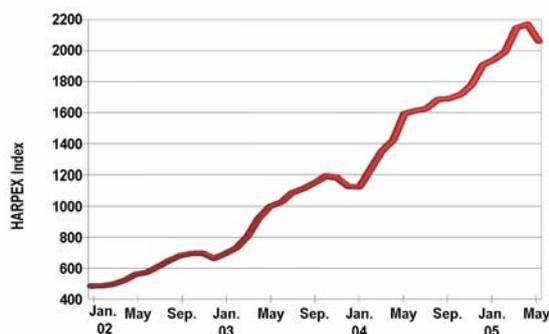
SUPPLY/DEMAND PATTERNS IN CONTAINER AND GENERAL CARGO SHIPPING

Monthly market indicators at a glance

Cargo upturns in container trades are also reflected in traffic statistics of leading world container ports as well as container freight rates.

The ISL "Monthly Container Port Monitor" shows the dynamic development of world container traffic. Monthly TEU figures up to April 2005 increased dramatically in the majority of hub ports in Asia, Europe and America.

Fig. 8: Monthly HARPEX⁵ container charter rate index up to May 2005



ISL based on Harper Petersen & Co

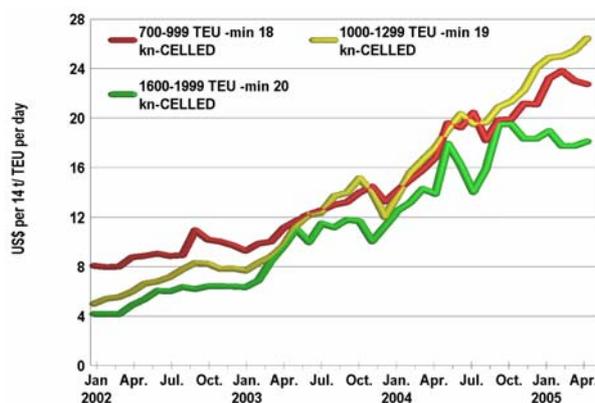
Container rates monitored by ISL climbed steadily during 2004 and the first five month of 2005. After a decrease in the second half of 2003 also the German overall index of liner trade freight rates up to May 2005, reflects freight rate increases especially in Asian and American trades. From January to April 2005 the overall index increased by 3 percent.

⁵ HARPEX is the container ship index of the ship brokers Harper Petersen & Co. (GmbH & Cie. KG). The work of compiling the index was carried out in the year 2004 by staff of Harper Petersen & Co. and Nordcapital Holding and by Professor Berthold Volk of the Department of Shipping at the university of applied science Oldenburg/ Ostfriesland/ Wilhelmshaven.

The weighted Charter Rate Index from Harper Peterson & Co increased more than 68 per cent during the year 2004 and another 6 per cent from the beginning of January to End of April 2005.

The "Hamburg Index for Containership Time Charter Rates" up to May 2005 showed ongoing rate improvements for the majority of size classes ranging from under 999 TEU up to 1,999 TEU.

Fig. 9: Monthly charter rate development for selected size classes up to April 2005



ISL based on Vereinigung Hamburger Schiffsmakler und Schiffsgagenten e.V.

Future tonnage supply in container and general cargo shipping

According to ISL findings, only 15 container ships totalling 0.2 mill dwt were broken-up during 2004. This is the lowest level since 1995 when 8 Container ships totalling 177.000 dwt were scraped. Scrap candidates in 2004 were mainly container ships with sizes less than 1,000 TEU.

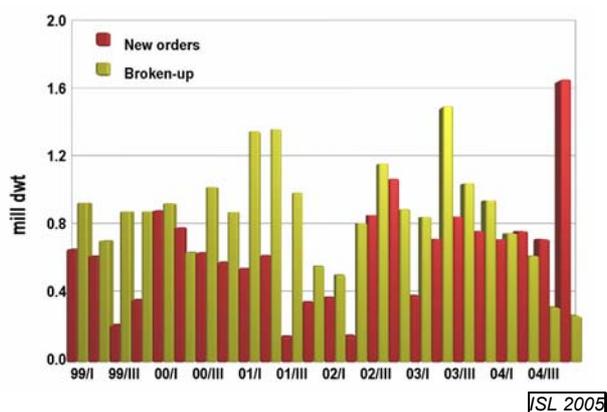
During 2004, 514 container vessels with a capacity of 1.7 mill TEU were contracted. This represents a new record high compared with previous years' figures. At the beginning of 2005, the container ship order book (ships of 300 gt and over) stood at 903 ships with 45.9 mill dwt and 3.6 mill TEU. At least 140 container ships on order have capacities of 8,000 TEU and above. As in the previous years, the focus of the order activity has been on large ship units. In terms of tonnage, the order book of fully cellular container ships increased by 44.7 per cent compared with dwt-tonnage figures at the beginning of 2004. The order book represents a TEU-share of 57.6 per cent related to the existing container fleet (April 1st, 2005).

In 2004, 326 general cargo ships with a total tonnage of 1.8 mill dwt were sold to breakers, which represents, in terms of tonnage, a decrease of 57.1 per cent compared with results in 2003. During 2004, 383 general cargo ships with 3.6 mill dwt were added to the order book (ships of 300 gt and over). Compared to the year 2003, this represents, in terms

General cargo and container fleet, supply/demand, ports

of dwt, an increase of about 30 per cent. The total order book as of January 1st, 2005 stood at 569 general cargo ships with 6.3 mill dwt. Compared with last year's results, this represents an increase of 22.5 per cent.

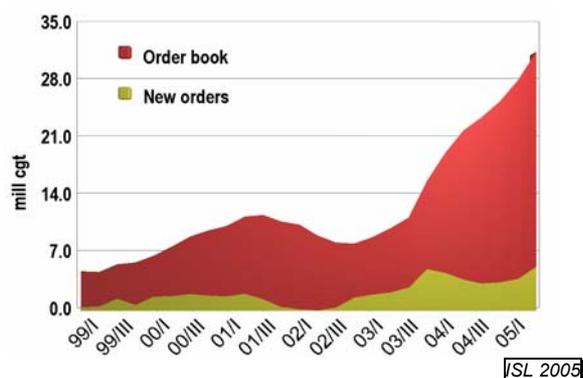
Fig. 10: General cargo fleet - quarterly development of new orders and broken-up tonnage 1999 – 2005 (in dwt)



THE SHIPBUILDING INDUSTRY

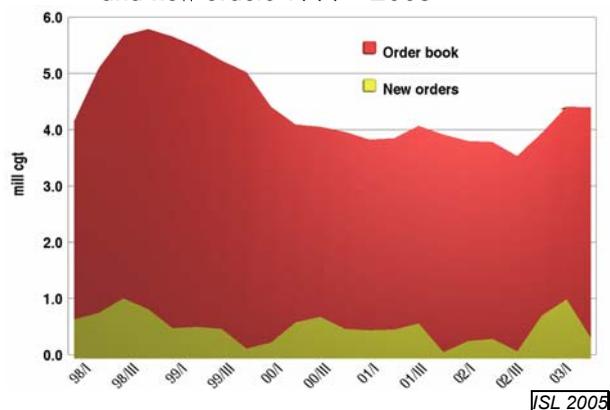
Order activities for general cargo and fully cellular container ships are an indicator for the “market climate”. As already pointed out, for both market segments ordering of new tonnage developed positively.

Fig. 11: Container ships– Quarterly order book and new orders 1999 - 2005



At the beginning of 2005, the order book reached a level of 27.5 mill cgt for container ships and 8.0 mill cgt for general cargo ships. Compared with previous years' cgt figures, the order book for container ships strongly increased by 46.2 per cent, whereas the increase for general cargo ships stood at 37.3 per cent. The order book at the beginning of 2005 comprised 104 container ships in the size class between 8,000 TEU and 8,999 TEU, and 36 ships with a capacity of 9,000 TEU and over. This 140 ships totalling 8.4 mill cgt and have a cgt share of 30.7 per cent on the total container order book.

Fig. 12: General cargo ships– Quarterly order book and new orders 1999 - 2005



As of January 1st, 2005, 66.9 per cent of the total general cargo tonnage, in terms of cgt, was attributable to Asian shipyards (January 1st, 2001: 40.1 per cent). Their cgt market share for container ships stood at 87.2 per cent. Far Eastern yards increased their order book container tonnage by over 206 per cent compared with figures at the beginning of 2001, which is equal to an average yearly growth of 32.3 per cent. The order book ranking by country of build is led by Japan for general cargo ships and by South Korea for containerships. The latter is especially dominating the market for larger container ship units.

The order book for CESA⁶-yards stood at the beginning of 2005 at 4.1 mill cgt for container ships and 2.0 mill cgt for general cargo.

WORLD PORT CONTAINER TRAFFIC

The following analysis is focussing on the regional development patterns of world container ports⁷.

The total container traffic volume of the top container ports, with a container traffic of more than one mill TEU analysed here, reached 264 mill TEU in 2004 and increased by 14.4 per cent compared with results in 2003. The 2004 analysis includes 71 ports (34 Asian/Oceania ports, 20 European ports and 17 American ports).

In 2004, approx. 64 per cent of the world container traffic, in terms of TEU, were attributable to Asian ports, whereby the top 8 Chinese ports alone represent 26.1 per cent of the total container traffic.

⁶ CESA: Community of European Shipyard Associations; formerly AWES

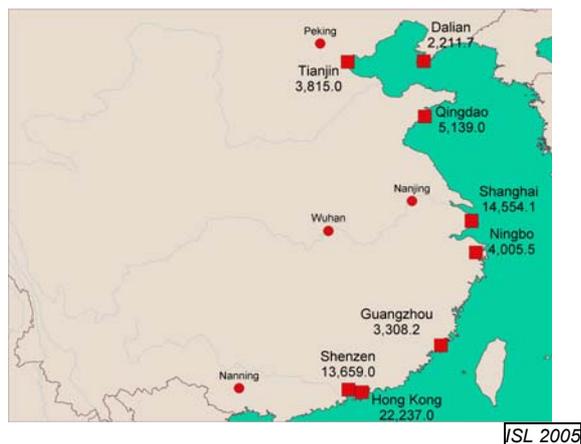
⁷ ISL provides detailed information on container traffic development of major world container ports. Information is based on the ISL port data base and a special inquiry. Comments on the presented tables and completions of missing data and additional statistics will be much appreciated. This figures are a basic indicator for maritime trade developments in 2003/2004. The monthly traffic figures are based on our new service, the ISL Monthly Container Port Monitor.

General cargo and container fleet, supply/demand, ports

Europe had a share of 20.6 per cent of the world container port traffic and America 15.0 per cent.

The top Chinese mainland container ports (without Hong Kong) grew on average by more than 30 per cent yearly. Their annual container traffic summed up to 13.4 mill TEU in 1999 and 36.4 mill TEU in 2003 respectively.

Fig. 13: Major Chinese Container ports in 2004 (in 1000 TEU)



Based on information from Chinese port officials, the port of Shenzhen, reached a container traffic growth of nearly 28.2 per cent compared with 2003 and handled 13.7 mill TEU in 2004 - just one million TEU less than Shanghai.

In 2004, container traffic of the two top ranking world ports increased 8.7 per cent (Hong Kong) and 15.9 per cent (Singapore). Based on this growth tendency, and the TEU-figures of the first quarter of 2005, Singapore will take over the position as the biggest container port of the world from Hong Kong this year. The third ranking port, now Shanghai, grew by 29.1 per cent up to a traffic volume of 14.6 mill TEU in 2004.

The major transshipment ports in the Near East are Dubai Ports, Khor Fakkan in the UAE, Salalah in Oman and Jeddah in Saudi Arabia. According to the Dubai Ports Authority, the increase mainly results from the increasing Chinese traffic. Dubai showed a container traffic growth of 24.8 per cent compared with 2003 reaching a total traffic volume of 6.4 mill TEU.

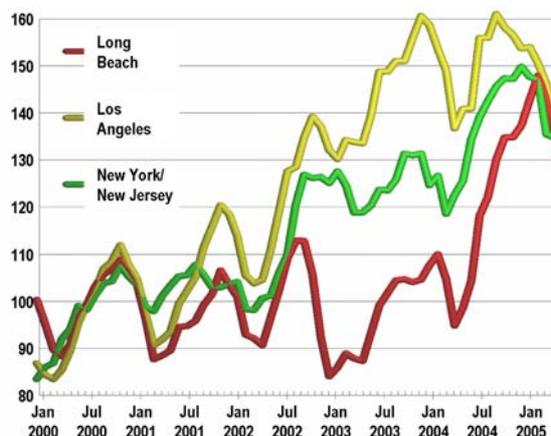
All major container ports in the US, except Los Angeles, showed substantial gains. This is especially true for Long Beach (plus 24 per cent, 5.8 mill TEU in 2004), Houston (plus 20.4 per cent, 1.44 mill TEU in 2004) and Seattle (plus 19.6 per cent, 1.78 mill TEU in 2004).

In 2004, Rotterdam, the top European container port, increased its traffic by 16.4 per cent. The port is now ranked on position 8 in the world container port league. Rotterdam and Hamburg (showing a plus of 14.1 per cent) won market shares from Antwerp,

Bremen/Bremerhaven and Le Havre, which decreased their combined market share considerably.

Container traffic of the top five Mediterranean ports, namely Gioia Tauro, Algeciras, Valencia, Barcelona and Genoa increased by 8.8 per cent. This growth is mainly determined by the three Spanish ports Algeciras, Valencia and Barcelona, showing an increase of 16.7 per cent (Algeciras up to 2.9 mill TEU in 2004), 7.6 per cent (Valencia up to 2.1 mill TEU in 2004) and 15.7 per cent (Barcelona up to 1.9 mill TEU in 2004). Competition between the large transshipment hubs is extremely strong.

Fig. 14: Monthly container traffic of major North American ports 2000-2005 (TEU - Index 2000=100)



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North American West coast ports have strong relationships to Far Eastern ports. Their traffic is to more than 90 per cent distributed to and from the Far East. This interrelation is underlined by the analysis of monthly container traffic of North American West coast ports.

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